



**Massachusetts Department of Environmental Protection
Bureau of Resource Protection – Wastewater Permitting Program
Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal**

Builders Lot 1

Site Address or Map/Lot Number

RECEIVED

C. On-Site Review (minimum of two holes required at every proposed disposal area)

Deep Observation Hole: Date: 9/11/15 Time: 12:00 Weather: Sunny Location (Identify on Plan): Lot 1

PLANNING BOARD
GRAFTON, MA

- Deep Hole Number 1A
- Land Use: Buildings Surface Stones: N/A Slope (%): 1-3 Vegetation: Devoid
Landform: Moraine Position on landscape:
- Distances from: Open Water Body ft. Drainage Way ft. Possible Wet Area ft.
Property Line ft. Drinking Water Well ft. Other ft.
- Parent Material: ~~glacial till & gravel~~ Unsuitable Materials Present: Yes No
- If Yes: Disturbed Soil Fill Material Impervious Layer(s) Weathered/Fractured Rock Bedrock
- Groundwater Observed: Yes No
If Yes: Depth Weeping from Pit ft. Standing Water in Hole ft. Estimated Depth to High Groundwater: 120⁺

Depth (In.)	Soil Horizon/Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features (mottles)			Gravel	Cobbles & Stones	Soil Structure	Soil Consistency (Moist)	Other
				Depth	Color	Percent					
A	B										
0-1"	A	FSL	10 YR 2/2				-	-	G	VF	
1-24"	Bw	FSL	10 YR 5/6				-	5	M	VF	
24-120"	C	coarse sand	2.5 Y 3/2				20+	20+	SC	Firm in P loose in H Grossly Stratified Soil	

Additional Notes No SW, No Weeping, No Mottling observed to 120". Stratified sand observed on South Wall of Depth.



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Boulders lot 1

Site Address or Map/Lot Number

C. On-Site Review (minimum of two holes required at every proposed disposal area)

Deep Observation Hole: Date: 9/11/15 Time: 12:15 Weather: Sunny lot 1

1. Deep Hole Number 1B Location (Identify on Plan): Lot 1
2. Land Use: Woods Surface Stones: N/A Slope (%): 1-3 Vegetation: Woods
3. Distances from: Open Water Body ft. Drainage Way ft. Possible Wet Area ft.
Property Line ft. Drinking Water Well ft. Other ft.
4. Parent Material: Same Unsuitable Materials Present: Yes No

- If Yes: Disturbed Soil Fill Material Impervious Layer(s) Standing Water in Hole ft. Estimated Depth to High Groundwater: 120' + 2 min./in.
- If Yes: Depth Weeping from Pit ft.

Landform: <u>Moraine</u>	Position on landscape:
<u>μA</u>	
Surface Stones: <u>N/A</u>	
Slope (%): <u>1-3</u>	
Vegetation: <u>Woods</u>	

Depth (In.)	Soil Horizon/ Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features (mottles)			Coarse Fragments % by Volume		Soil Structure	Soil Consistency (Moist)	Other
				Depth	Color	Percent	Gravel	Cobbles & Stones			
0-1"	A _p	F _{SL}	10 YR 2/2				-	-	6	VF	
1"-20"	B _w	F _{SL}	10 YR 5/6				-	5	m	VF	
20"-120"	C	Loose Sand	2.5 Y 3/2				20+	20+	56	Firm loose in strata	

Additional Notes No Su, No Weeping, no Mottling observed to 120'.



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Buillets lot 1

Site Address or Map/Lot Number

C. On-Site Review (minimum of two holes required at every proposed disposal area)

Deep Observation Hole: Date: 9/11/15 Time: 12:10 Weather: Sunny (60°)

1. Deep Hole Number 1C Location (Identify on Plan): Lot 1

2. Land Use: Woods Surface Stones: N/A Slope (%): 1-3 Vegetation: Weak

Landform: Moraine

Position on landscape:

3. Distances from: Open Water Body ft. Drainage Way ft. Possible Wet Area ft.

Property Line ft. Drinking Water Well ft. Other ft.

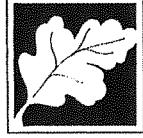
4. Parent Material: Sand Unsuitable Materials Present: Yes No

If Yes: Disturbed Soil Fill Material Impervious Layer(s) Weathered/Fractured Rock Bedrock

5. Groundwater Observed: Yes No
If Yes: Depth Weeping from Pit ft. Standing Water in Hole ft. Estimated Depth to High Groundwater: 120"

Depth (in.)	Soil Horizon/ Layer	Soil Texture (USDA)	Redoximorphic Features (mottles)			Coarse Fragments % by Volume		Soil Structure	Soil Consistency (Moist)	Other
			Depth	Color	Percent	Gravel	Cobbles & Stones			
0-2"	A	Ap	PS	10 YR 2/2		—	—	O	VF	
2-18"	Bw	PsL	10 YR 5/6			—	5	M	VF	
18-72"	C	Coarse Sand	2.5 Y 1/2			20+	20+	SC	Firm in P Gravelly in H loose in H stratified sand	

Additional Notes No SW, No Weeping, No Muffling, Observed to 120"



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Builders Lot 1

Site Address or Map/Lot Number

C. On-Site Review (minimum of two holes required at every proposed disposal area)

Deep Observation Hole: Date: 9/11/15 Time: 12:45' Weather: Sunny 65°

1. Deep Hole Number D Location (Identify on Plan): Lot 1
2. Land Use: Wood Surface Stones: N/A Slope (%): 1-3 Vegetation: Wooded
3. Distances from: Open Water Body ft. Drainage Way ft. Possible Wet Area ft.
Property Line ft. Drinking Water Well ft. Other ft.
4. Parent Material: Same Unsuitable Materials Present: Yes No
If Yes: Disturbed Soil Fill Material Impervious Layer(s) Weathered/Fractured Rock Bedrock
5. Groundwater Observed: Yes No
If Yes: Depth Weeping from Pit ft. Standing Water in Hole ft. Estimated Depth to High Groundwater: 120+ ft.

A	B	Soil Horizon/ Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Reodoximorphic Features (mottles)			Coarse Fragments % by Volume		Soil Structure	Soil Consistency (Moist)	Other
					Depth	Color	Percent	Gravel	Cobbles & Stones			
0-2"	A	Ap	PS	10 YR 1/2				-	-	6	VF	
2"-4"	Bw	FSL	10 YR 5/6					-	5	M	VF	
4"-10"	C	Loamy Sand	2.5 Y 1/2					20+	20+	S6	Firer in P Ground bed in H Shrub Zone	

Additional Notes No Sulfur, No Leaching, no Mottling observed to 120+



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Site Address or Map/Lot Number

Bidders Lot 2

C. On-Site Review (minimum of two holes required at every proposed disposal area)

Deep Observation Hole: Date: 9/0/15 Time: 9:45 Weather: Overcast 70°

1. Deep Hole Number A Location (Identify on Plan): Lot 2

2. Land Use: Residential Surface Stones: NA Slope (%): 1-5 Vegetation: Wooded

Landform: Moraine Position on landscape: On ridge

3. Distances from: Open Water Body ft. Drainage Way ft. Possible Wet Area ft.

Property Line ft. Drinking Water Well ft. Other ft.

Parent Material: Fine sandy loam, overlying bedrock, unsuitable materials present. Yes No

If Yes: Disturbed Soil Fill Material Impervious Layer(s) Weathered/Fractured Rock Bedrock

5. Groundwater Observed: Yes No Standing Water in Hole 108" Estimated Depth to High Groundwater: 108"

If Yes: Depth Weeping from Pit ft.

Depth (In.)		Soil Horizon/ Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features (mottles)			Gravel Percent	Cobbles & Stones	Soil Structure	Soil Consistency (Moist)	Other
A	B				Depth	Color	Percent					
0 - 2"		Ap	FSL	10 YR 3/3			-	-	-	6	VF	
2 - 26"		Bv	FSL	10 YR 4/6			-	10	10	M	VF	Moraine
26 - 108"		C ₁	LS	25 Y 4/2			20	20	56	Firm in P loose in H	Firm in P loose in H	Boulders & cobbles stratified soil horizon

Additional Notes No SW, No Weeping, Refusal @ 108". No Mottles Observed. Est SJ @ Bottom of Excavation @ 108".



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Bureau of Resource Protection – Wastewater Permitting Program
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Builders Lot 2

Site Address or Map/Lot Number

C. On-Site Review (minimum of two holes required at every proposed disposal area)

Deep Observation Hole: Date: 9/10/15 Time: 10:30 Weather: Partly Cloudy

1. Deep Hole Number A13 Location (Identify on Plan): Lot 2
2. Land Use: Jobs Surface Stones: N/A Slope (%): 1-1 Vegetation: Wooded
3. Distances from: Open Water Body ft. Drainage Way ft. Possible Wet Area ft.
Property Line ft. Drinking Water Well ft. Other ft.
4. Parent Material: Sand Unsuitable Materials Present: Yes No
- If Yes: Disturbed Soil Fill Material Impervious Layer(s) Weathered/Fractured Rock Bedrock
- If Yes: Depth Weeping from Pit — Standing Water in Hole — Estimated Depth to High Groundwater: 110"

Depth (in.)	Soil Horizon/ Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features (mottles)			Coarse Fragments % by Volume	Soil Structure	Soil Consistency (Moist)	Other
				Depth	Color	Percent				
A	B									
0-2"	<i>A_p</i>	<i>F_{sL}</i>	10 YR 1/3				-	-	<i>C</i>	<i>VR</i>
2-14"	<i>B_L</i>	<i>F_{sL}</i>	10 YR 4/6				-	10	<i>M</i>	<i>VR</i>
14-100"	<i>C_L</i>	<i>LS</i>	25 Y 1/2				20	20	<i>SC</i>	Firm to P Boulders + Loose in H Cohesive sand 10' vs Through the horizon

Additional Notes No SW, No Uplift, Natural @ 110". No Mottles Observed. Est'd Estimated @ Bottom of Excavation @ 110".



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Bullers Lot 2

Site Address or Map/Lot Number

C. On-Site Review (minimum of two holes required at every proposed disposal area)

Deep Observation Hole: Date: 9/6/15 Time: 10:40 Weather: Burst 70's

1. Deep Hole Number 2c Location (Identify on Plan): Lot 2

2. Land Use: Wards Surface Stones: N/A Slope (%): 1-5 Vegetation: Wooded
Landform: Moraine Position on landscape:

3. Distances from: Open Water Body ft. Drainage Way ft. Possible Wet Area ft.

Property Line ft. Drinking Water Well ft. Other ft.

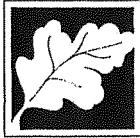
4. Parent Material: _____ Unsuitable Materials Present: Yes No

If Yes: Disturbed Soil Fill Material Impervious Layer(s) Weathered/Fractured Rock Bedrock

5. Groundwater Observed: Yes No
If Yes: Depth Weeping from Pit — Standing Water in Hole — Estimated Depth to High Groundwater: 120"

Depth (in.)	Soil Horizon/ Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features (mottles)			Coarse Fragments % by Volume	Soil Structure	Soil Consistency (Moist)	Other
				Depth	Color	Percent				
A	B									
0-2"	Af	FSL	10 YR 3/3				-	-	VS	
2"-18"	Bv.	FSL	10 YR 4/4				-	5	ML	Many Roots
18"-36"	Bv2	PGL	2.5Y 5/6				-	-	ML	VF
36"-120"	C.	LS	2.5Y 4/2				20	20	SC	Firm in P Loose in H Coarse sand mixed throughout

Additional Notes No SW, No Weeping, No Mottes observed. ESH & Bottom of Excavation @ 120".



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Buil lots lot 2

Site Address or Map/Lot Number

C. On-Site Review (minimum of two holes required at every proposed disposal area)

Deep Observation Hole: Date: 9/10/15 Time: 10:50 Weather: Overcast 70°

1. Deep Hole Number 1D
 2. Land Use: Woods Surface Stones: _____ Slope (%): _____ Vegetation: Wooded
 3. Distances from: Open Water Body ft. Drainage Way ft. Possible Wet Area ft.
Property Line ft. Drinking Water Well ft. Other ft.
 4. Parent Material: Same Unsuitable Materials Present: Yes No
 - If Yes: Disturbed Soil Fill Material Impervious Layer(s) Weathered/Fractured Rock Bedrock
 - If Yes: Depth Weeping from Pit ft. Standing Water in Hole ft. Estimated Depth to High Groundwater: 120"
- | Depth (in.) | | Soil Horizon/
Layer | Soil Texture
(USDA) | Soil Matrix:
Color-Moist
(Munsell) | Redoximorphic Features
(mottles) | | | Coarse Fragments
% by Volume | Cobbles
& Stones | Soil Structure | Soil Consistency
(Moist) | Other |
|-------------|----|------------------------|------------------------|--|-------------------------------------|-------|---------|---------------------------------|---------------------|-------------------------|---|-------|
| A | B | | | | Depth | Color | Percent | | | | | |
| 0-2" | | Ap | Prl | 10 yr 1/3 | | | - | - | 6 | VF | | |
| 2"-8" | | Bu. | Psl | 10 yr 4/4 | | | - | 5 | 11 | VF | Mang Roots | |
| 8"-30" | | Buz | Psl | 2.5 yr 5/6 | | | - | - | 11 | VF | | |
| 30"-120" | C, | Ls | 2.5 yr 1/2 | | | | 20 | 20 | 56 | Firm in P
Loose in H | Boulders
Coarse Sand
mix of Mangalair | |
- Additional Notes No SW, No Weeping, No Mottles Observed. ESTHJ below 80's above bottom of excavation @ 120".



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Bulldozer Lot 3

Site Address or Map/Lot Number

C. On-Site Review (minimum of two holes required at every proposed disposal area)

Deep Observation Hole: Date: 7/2/15 Time: 12:45 PM Weather: Sunny 80°

1. Deep Hole Number 3A

Location (Identify on Plan): Lot 3

2. Land Use: Undeveloped

Surface Stones: Yes Slope (%): 15%

Vegetation: Grass & Weeds

Landform: Aeroline Position on landscape:

3. Distances from: Open Water Body ft. Drainage Way ft. Possible Wet Area ft.

Property Line ft. Drinking Water Well ft. Other ft.

F. Coarse Grained Deposits, e.g., Unsuitable Materials Present: Yes No

4. Parent Material: F. Sandy loam 1/2

If Yes: Disturbed Soil Fill Material Impervious Layer(s) Weathered/Fractured Rock Bedrock

5. Groundwater Observed: Yes No

If Yes: Depth Weeping from Pit — Standing Water in Hole — Estimated Depth to High Groundwater: 84"

Depth	Start Soak	End Soak
0"-4"	<u>3:10</u>	<u>3:10</u>
4"-12"	<u>3:25</u>	<u>3:25</u>
12"-20"	<u>3:25</u>	<u>3:25</u>
20"-60"	<u>3:46</u>	<u>3:46</u>
60"-96"	<u>4:12</u>	<u>4:12</u>

Depth (in.)	Soil Horizon/ Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features (mottles)			Coarse Fragments % by Volume		Soil Structure	Soil Consistency (Moist)	Other
				Depth	Color	Percent	Gravel	Cobbles & Stones			
0"-4"	A	Ap	FSL	10 YR 2/2			—	—	G	VF	Rocks
4"-12"	Bw	FSL	10 YR 4/6				—	—	M	VF	
12"-20"	C1	Gravelly VS	2.5 Y 4/2				20	10	SC	Firm to P Loose in H	Boulders & Cobbles
20"-60"	C2	LS	5 Y 3/1	8Y 11	C. 7.5 Y 2.9/4	5%	—	—	SC	11	
60"-96"											

Additional Notes: No Seep, No Leaching + Mottles @ 84". Refusal @ 96"



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Dubbers lot 3

Site Address or Map/Lot Number

C. On-Site Review (minimum of two holes required at every proposed disposal area)

Deep Observation Hole: Date: 9/2/15 Time: 1:00 PM Weather: Sunny 80°

1. Deep Hole Number 31 Location (Identify on Plan): Lot 3

2. Land Use: Decks Surface Stones: Yes Slope (%): 5% Vegetation: Wooded

Landform: Hillside

Position on landscape:

3. Distances from: Open Water Body ft. Drainage Way ft. Possible Wet Area ft.

Property Line ft. Drinking Water Well ft. Other ft.

4. Parent Material: Same Unstable Materials Present: Yes No

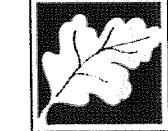
If Yes: Disturbed Soil Fill Material Impervious Layer(s) Weathered/Fractured Rock Bedrock

5. Groundwater Observed: Yes No If Yes: Depth Weeping from Pit ft. Standing Water in Hole ft. Estimated Depth to High Groundwater: > 78"

P = 7.33 w/

Depth (In.)	Soil Horizon/ Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features (mottles)			Coarse Fragments % by Volume	Soil Structure	Soil Consistency (Moist)	Other
				Depth	Color	Percent				
0"-4"	A _p	F ₃₂	10 YR 2/2				-	-	6	VF
4"-24"	B _w	F ₃₂	10 YR 4/6				-	/10	M	VF
24"-36"	C ₁	Loamy LS	2.5 Y 4/2	84°	c. 7.5 M H	5	20	/10	SL	Firm in P Boulders louise in it calories

Additional Notes No SW, No Weeping, the soil is . Refusal @ 78" with machine. Hard Dug to 80"



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Builders Lot 3

Site Address or Map/Lot Number

C. On-Site Review (minimum of two holes required at every proposed disposal area)

Deep Observation Hole: Date: 9/2/15 Time: 1:10 Weather: Sunny 80°

1. Deep Hole Number 3C

Location (Identify on Plan): Lot 3

2. Land Use: Wood's Surface Stones: Yes Slope (%): — Vegetation: Woods

Landform: Moraine

Position on landscape:

3. Distances from: Open Water Body ft. Drainage Way ft. Possible Wet Area ft.

Property Line ft. Drinking Water Well ft. Other ft.

4. Parent Material: Shale Unsuitable Materials Present: Yes No

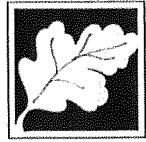
If Yes: Disturbed Soil Fill Material Impervious Layer(s) Weathered/Fractured Rock Bedrock

5. Groundwater Observed: Yes No Standing Water in Hole — Estimated Depth to High Groundwater: 84"

If Yes: Depth Weeping from Pit — Standing Water in Hole — Estimated Depth to High Groundwater: 84"

Depth (in.)	Soil Horizon/ Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features (mottles)			Coarse Fragments % by Volume		Soil Structure	Soil Consistency (Moist)	Other
				Depth	Color	Percent	Gravel	Cobbles & Stones			
0-4"	A _p	FSL	10YR 4/2				—	—	G	VF	Rocks
4-24"	B _w	FSL	10YR 4/6				—	10	M	VF	
24-68"	C ₁	Gravel LS	2.5Y 4/2				20	10	SC	Firm in P Loose in H	
68-96"	C ₂	LS	5Y 3/1	84"	C. 7.5Y 4/4	5	—	—	SC	H	

Additional Notes No seepage, Mottles @ 84". Rusted at 96".



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Builders Lot 3

Site Address or Map/Lot Number

C. On-Site Review (minimum of two holes required at every proposed disposal area)

Deep Observation Hole: Date: 9/2/15 Time: 2:00 Weather: Sunny 80°

- Deep Hole Number 3D Location (Identify on Plan): Lot 3
- Land Use: Buildings Surface Stones: Ye S Slope (%): 15 Vegetation: Wooded
- Landform: Moraine Position on landscape:
- Distances from: Open Water Body ft. Drainage Way ft. Possible Wet Area ft.
- Property Line ft. Drinking Water Well ft. Other ft.
- Parent Material: Sand Unstable Materials Present: Yes No
- If Yes: Disturbed Soil Fill Material Impervious Layer(s) Weathered/Fractured Rock Bedrock
- Groundwater Observed: Yes No
- If Yes: Depth Weeping from Pit ft. Standing Water in Hole ft. Estimated Depth to High Groundwater: 80 ft

Depth (in.)	Soil Horizon/ Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features (mottles)			Coarse Fragments % by Volume		Soil Structure	Soil Consistency (Moist)	Other
				Depth	Color	Percent	Gravel	Cobbles & Stones			
0-4"	A ₁	FSL	10 yr 1/2				-	-	6	VF	
4-10"	B ₁	FSL	10 yr 4/6				-	-	10	M	VL
10-12"	C ₁	Loamy LS	2.5 yr 4/2	80"	c. 75 yr 4/4	5	20	10	56	firm in place loose in hard bubbles	

Additional Notes: No SW, No Weeping. Refusal @ 82", Hand dug to 92".



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Builders lot 4

Site Address or Map/Lot Number

C. On-Site Review (minimum of two holes required at every proposed disposal area)

Deep Observation Hole: Date: 7/2/15 Time: 10:15 Weather: Sunny 80°

1. Deep Hole Number 4A Location (Identify on Plan): Lot 4

2. Land Use: Woods Surface Stones: Yes Slope (%): 15% Vegetation: Weed

Landform: Moraine Position on landscape: _____

3. Distances from: Open Water Body _ft. Drainage Way ____ ft. Possible Wet Area ____ ft.

Property Line 100' ft. Drinking Water Well ____ ft. Other ____ ft.
*f. coarse loam deposit, soil
suitable base fill*

Parent Material: F sandy base fill Unsuitable Materials Present: Yes No

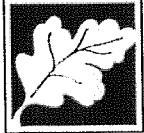
If Yes: Disturbed Soil Fill Material Impervious Layer(s) Weathered/Fractured Rock Bedrock

5. Groundwater Observed: Yes No

If Yes: Depth Weeping from Pit ____ Standing Water in Hole ____ Estimated Depth to High Groundwater: 36"

Depth (In.)	Soil Horizon/ Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features (mottles)			Gravel	Cobbles & Stones	Coarse Fragments % by Volume	Soil Structure	Soil Consistency (Moist)	Other
				A	B	Percent						
0-2"	A _p	FSL	10 YR 4/2				-	-	6	GP	VP	
2"-34"	B _{w₁}	FSL	25 Y 5/4				-	-	10%	W	VP	Rocks
34"-50"	B _{w₂}	F _L S	10 YR 5/4	36"	2:5Y 2/4	20%	-	-	5%	W	VP	
50"-100"	C	Gravelly L _s	2.5 Y 4/2				20%	10%	50	Firm in P loose in H	W	robbles & Boulders

Additional Notes No Ss, No Weeping. Bottom @ 36". Large Boulders mixed through B+C horizon.
Bw₁ horizon is a stratified FLS. Water possibly perching in layer above C.



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Boulders Lot 4

Site Address or Map/Lot Number

C. On-Site Review (minimum of two holes required at every proposed disposal area)

Deep Observation Hole: Date: 9/2/15 Time: 10:30 Weather: Sunny 80°

- Deep Hole Number 4B
- Location (Identify on Plan): Lot 4
- Land Use: Woods Surface Stones: Yes Slope (%): 15 Vegetation: Wetland
- Landform: Moraine
- Distances from: Open Water Body ft. Drainage Way ft. Possible Wet Area ft.
Property Line ft. Drinking Water Well ft. Other ft.
- Parent Material: Same Unsuitable Materials Present: Yes No
- If Yes: Disturbed Soil Fill Material Impervious Layer(s) Weathered/Fractured Rock Bedrock
- If Yes: Depth Weeping from Pit — Standing Water in Hole — Estimated Depth to High Groundwater: 38"

Depth	Start Soak

A	B	Soil Horizon/ Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features (mottles)			Coarse Fragments % by Volume		Soil Structure	Soil Consistency (Moist)	Other
					Depth	Color	Percent	Gravel	Cobbles & Stones			
0-2"	A _p	F _{SL}	10 YR 4/2							6	VF	
2"-36"	B _w	F _{SL}	2.5 Y 5/4									
36"-50"	B _w ₂	F _{LS}	10 YR 5/4	38"	L-5TR 4/6	D-2.5Y 5/3	20%	10%	M	VF		
50"-104"	C	Granular L _s	2.5 Y 4/2					5%	M	VF		
								20%	10%	SL		

Additional Notes No Su, No Ueeping. Nothing @ 38". Large Boulders in Bedrock Horizon.



**Massachusetts Department of Environmental Protection
Bureau of Resource Protection – Wastewater Permitting Program
Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal**

Buillets Lot 4

Site Address or Map/Lot Number

C. On-Site Review (minimum of two holes required at every proposed disposal area)

Deep Observation Hole: Date: 9/2/15 Time: 11:15 Weather: Sunny 80°

1. Deep Hole Number 4C Location (Identify on Plan): Lot 4

2. Land Use: Woods Surface Stones: Yes Slope (%): 15 Vegetation: Wooded

Landform: Moraine Position on landscape:

3. Distances from: Open Water Body ft. Drainage Way ft. Possible Wet Area ft.

Property Line ft. Drinking Water Well ft. Other ft.

4. Parent Material: Some Unsuitable Materials Present: Yes No

If Yes: Disturbed Soil Fill Material Impervious Layer(s) Weathered/Fractured Rock Bedrock

5. Groundwater Observed: Yes No Standing Water in Hole — Estimated Depth to High Groundwater: 46" Reached 84" GW

A	B	Depth (in.)	Soil Horizon/ Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features (mottles)			Coarse Fragments % by Volume			Soil Structure	Soil Consistency (Moist)	Other
						Depth	Color	Percent	Gravel	Cobbles & Stones				
0-3"	A _p	FSL	10 1/2" 1/2						—	—	6	VF		
3"-34"	Bu.	FSL	25 1/4" 1/2						—	—			Very Wet	
34"-84"	Bu. _s	FSL	10 1/2" 1/2						—	—				
84"-106"	C	General Ls	2.5" 1/2" 84"						20%	10%	SG	Firm in P Loose in H	Calcareous & Boulders	

Additional Notes No SW, No Weeping, nothing @ 46" except Large Boulders in Bed Horizon.



**Massachusetts Department of Environmental Protection
Bureau of Resource Protection – Wastewater Permitting Program
Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal**

Bucks lot 4

Site Address or Map/Lot Number

C. On-Site Review (minimum of two holes required at every proposed disposal area)

Deep Observation Hole: Date: 9/2/15 Time: 12:00 Weather: Sunny 80°

1. Deep Hole Number 4D

Location (Identify on Plan): Lot 4

2. Land Use: Woods Surface Stones: Yes Slope (%): 15 Vegetation: Unseeded

Landform: Moraine

Position on landscape:

3. Distances from: Open Water Body ft. Drainage Way ft. Possible Wet Area ft.

Property Line ft. Drinking Water Well ft. Other ft.

4. Parent Material: Some Unsuitable Materials Present: Yes No

If Yes: Disturbed Soil Fill Material Impervious Layer(s) Weathered/Fractured Rock Bedrock

5. Groundwater Observed: Yes No

If Yes: Depth Weeping from Pit — Standing Water in Hole — Estimated Depth to High Groundwater: 42"

Depth (In.)	Soil Horizon/ Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features (mottles)			Coarse Fragments % by Volume	Soil Structure	Soil Consistency (Moist)	Other
				Depth	Color	Percent				
0-2"	A	Ap	FSL	10 1/2			—	—	G	VF
2"-28"	Bs	FSL	25 1 3/4				—	—		Roots
28"-60"	Bs ₂	FLs	10 1/2 1/4	42"	C. 5 YR 4/10 D. 2.5 Y 5/3	20%	—	10%	M	VF
60"-100"	C	Gravelly Ls	25 1 1/2				20	10%	SC	Firm in P. Cobbles & loose in H. Boulders

Additional Notes No SW, No Weeping, Mottling @ 42". Large Boulders in Bed Horizn.



**Massachusetts Department of Environmental Protection
Bureau of Resource Protection – Wastewater Permitting Program
Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal**

Builders lot 5

Site Address or Map/Lot Number

C. On-Site Review (minimum of two holes required at every proposed disposal area)

Deep Observation Hole: Date: 8/27/15 Time: 10:20 Weather: Sunny 70°

1. Deep Hole Number 5A Location (Identify on Plan): Lot 5

2. Land Use: Wooded Surface Stones: Yes Slope (%): 10% Vegetation: Wooded

Landform: Mesic

Position on landscape:

3. Distances from: Open Water Body ft. Drainage Way ft. Possible Wet Area ft.

Property Line ft. Drinking Water Well ft. Other ft.

4. Parent Material: Sand Unsuitable Materials Present: Yes No

If Yes: Disturbed Soil Fill Material Impervious Layer(s) Weathered/Fractured Rock Bedrock

5. Groundwater Observed: Yes No Standing Water in Hole ✓ Estimated Depth to High Groundwater: > 70"

P = 7 min/in

Depth (In.)	Soil Horizon/ Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features (mottles)			Gravel	Cobbles & Stones	Coarse Fragments % by Volume	Soil Structure	Soil Consistency (Moist)	Other
				A	B	Depth						
0-2"	Ap	FSL	10 YR 2/2				—	—	—	G	VF	
2"-22"	Bw	FSL	2.5 Y 6/4				0	< 10 %	M	VF	Many Rots	
22"-76"	C	Gravelly LS	2.5 Y 4/2				20%	10%	SG	Firm in Place Large in Hand	Gravel & Boulders	

Additional Notes No SU, No Weeping, No Mottling. Natural @ 70".

* Large Boulder Exposed 30' NW of Test Hole.



**Massachusetts Department of Environmental Protection
Bureau of Resource Protection – Wastewater Permitting Program
Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal**

Builders Lot 5

Site Address or Map/Lot Number

C. On-Site Review (minimum of two holes required at every proposed disposal area)

Deep Observation Hole: Date: 8/27/15 Time: 10:45

Weather: Sunny 70°

Location (Identify on Plan): Lot 5

Deep Hole Number 5B

Land Use: Residential Surface Stones: 0 Slope (%): 10% Vegetation: Wetland

Landform: _____ Position on landscape: _____

3. Distances from: Open Water Body ft. Drainage Way ft. Possible Wet Area ft.

Property Line ft. Drinking Water Well ft. Other ft.

Parent Material: Soil Unstable Materials Present: Yes No

If Yes: Disturbed Soil Fill Material Impervious Layer(s) Weathered/Fractured Rock Bedrock

5. Groundwater Observed: Yes No Standing Water in Hole 2 ft Estimated Depth to High Groundwater: 7/104

If Yes: Depth Weeping from Pit —

A	B	Soil Horizon/ Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features (mottles)			Coarse Fragments % by Volume		Soil Structure	Soil Consistency (Moist)	Other
					Depth	Color	Percent	Gravel	Cobbles & Stones			
0-2"	Ap	FSL	10 YR 2/2					—	—	G	VF	
2"-4"	Bs	FSL	2.5 Y 6/4				0	10%			M	Many Roots
4"-10"	C	Gravely LS	2.5 Y 4/2				20%	10%			S6	Porous Soil & Loose in Hard Boulders.

Additional Notes: No So, No Weeping, No Mottling. Refusal @ 104".



**Massachusetts Department of Environmental Protection
Bureau of Resource Protection – Wastewater Permitting Program
Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal**

Builders Lot 5

Site Address or Map/Lot Number

C. On-Site Review (minimum of two holes required at every proposed disposal area)

Deep Observation Hole: Date: 8/27/15 Time: 11:15 Weather: Sunny 70°

1. Deep Hole Number 5D Location (Identify on Plan): Lot 5

2. Land Use: Wooded Surface Stones: 0 Slope (%): 0 Vegetation: Wetland

Landform: Moraine Position on landscape:

3. Distances from: Open Water Body ft. Drainage Way ft. Possible Wet Area ft.

Property Line ft. Drinking Water Well ft. Other ft.

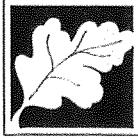
Parent Material: F_g coarse loam soil deposit over sandy bedrock Unsuitable Materials Present: Yes No

If Yes: Disturbed Soil Fill Material Impervious Layer(s) Weathered/Fractured Rock Bedrock

5. Groundwater Observed: Yes No If Yes: Depth Weeping from Pit ft. Standing Water in Hole ft. Estimated Depth to High Groundwater: > 96"

A	B	Soil Horizon/ Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features (mottles)			Coarse Fragments % by Volume		Soil Structure	Soil Consistency (Moist)	Other
					Depth	Color	Percent	Gravel	Cobbles & Stones			
0-2"	<u>Ae</u>	<u>Ap</u>	<u>PSL</u>	<u>10YR 1/2</u>				—	—	<u>G</u>	<u>VF</u>	
2-7"	<u>Bw</u>	<u>PSL</u>	<u>2.5Y 4/4</u>					—	10%	<u>M</u>	<u>VF</u>	<i>Many rocks</i>
7-9"	<u>C</u>	<u>General LS</u>	<u>2.5Y 4/2</u>					20%	10%	<u>SC</u>	<u>Firm & Place loose in Hand</u>	<u>Cobble Boulders</u>

Additional Notes No SW, no weeping, no nothing. Refused @ 96"



**Massachusetts Department of Environmental Protection
Bureau of Resource Protection – Wastewater Permitting Program
Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal**

Builders lot 5

Site Address or Map/Lot Number

C. On-Site Review (minimum of two holes required at every proposed disposal area)

Deep Observation Hole: Date: 8/27/15 Time: 11:00 Weather: Sunny 70°s

1. Deep Hole Number 5C

Location (Identify on Plan): Lot 5

2. Land Use: Wooded Surface Stones: * Yes Slope (%): 10% Vegetation: Wooded

Landform: Moraine

Position on landscape:

3. Distances from: Open Water Body ft. Drainage Way ft. Possible Wet Area ft.

Property Line ft. Drinking Water Well ft. Other ft.

4. Parent Material: Same Unsuitable Materials Present: Yes No

If Yes: Disturbed Soil Fill Material Impervious Layer(s) Weathered/Fractured Rock Bedrock

5. Groundwater Observed: Yes No

If Yes: Depth Weeping from Pit ft. Standing Water in Hole ft. Estimated Depth to High Groundwater: > 76 ft

A	B	Soil Horizon/ Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features (mottles)			Coarse Fragments % by Volume			Soil Structure	Soil Consistency (Moist)	Other
					Depth	Color	Percent	Gravel	Cobbles & Stones				
0-2"	A	Ap	FSL	10 YR 4/2				—	—	G	VF		
2-28"	B	Bs	FSL	2.5 Y 4/4				—	—				
28-76"	C	Ground LS	Ground LS	2.5 Y 4/2				20%	10%	M	VF		

Additional Notes: No SW, No Weeping, No Mottling. Refusal C 76 ft

* Large Boulder exposed at surface 30' NW of Hole.



**Massachusetts Department of Environmental Protection
Bureau of Resource Protection – Wastewater Permitting Program
Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal**

Builders Lot 6
Site Address or Map/Lot Number

C. On-Site Review (minimum of two holes required at every proposed disposal area)

Deep Observation Hole: Date: 8/26/15 Time: 9:00 AM Weather: Overcast 70°

1. Deep Hole Number 6A

Location (Identify on Plan): Lot 6

2. Land Use: Wooded Surface Stones: None Slope (%): 0 Vegetation: Woods

Landform: _____ Position on landscape:

3. Distances from: Open Water Body ft. Drainage Way ft. Possible Wet Area ft.

Property Line ft. Drinking Water Well ft. Other ft.

Fine-grained soils
Unsuitable Materials Present: Yes No

4. Parent Material: Erosion Deposits over
Bedrock Unsuitable Materials Present: Yes No

If Yes: Disturbed Soil Fill Material Impervious Layer(s) Weathered/Fractured Rock Bedrock

5. Groundwater Observed: Yes No

Standing Water in Hole 18" Estimated Depth to High Groundwater: > 18"

Depth (In.)	Soil Horizon/ Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features (mottles)			Gravel	Cobbles & Stones	Soil Structure	Soil Consistency (Moist)	Other
				Depth	Color	Percent					
A	B										
0-3"	Ap	Fine S _L	10 YR 2/2				—	—	Granular	VF	
3-24"	Bw ₁	Fine S _L	10 YR 3/4				—	—	Massive	VF	
24-36"	Bw ₂	Fine S _L	2.5 Y 6/4				—	—	Massive	VF	
36-60"	C ₁	Gravelly LS	2.5 Y 5/2				20%	< 10%	Massive	Firm in Place	Till, many calcareous bedrock boulders
60-118"	C ₂	Gravelly LS	2.5 Y 4 1/2				20%	< 10%	Massive	Firm, dry place frequent floods	Till, many calcareous bedrock boulders

Additional Notes No Weeping or Mottling Observed. Rofuse @ 118" - compact Till or bedrock.



**Massachusetts Department of Environmental Protection
Bureau of Resource Protection – Wastewater Permitting Program
Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal**

Builders Lot 6

Site Address or Map/Lot Number

C. On-Site Review (minimum of two holes required at every proposed disposal area)

Deep Observation Hole: Date: 8/16/15 Time: 10:30 Weather: Sunny 75°

1. Deep Hole Number b13

Location (Identify on Plan): Lot 6

2. Land Use: Wetland Surface Stones: None Slope (%): 0 Vegetation: Wetland

Landform: Moraine Position on landscape:

3. Distances from: Open Water Body ft. Drainage Way ft. Possible Wet Area ft.

Property Line ft. Drinking Water Well ft. Other ft.

4. Parent Material: Same Unsuitable Materials Present: Yes No

If Yes: Disturbed Soil Fill Material Impervious Layer(s) Weathered/Fractured Rock Bedrock

5. Groundwater Observed: Yes No

If Yes: Depth Weeping from Pit — Standing Water in Hole 120" Estimated Depth to High Groundwater: > 120"

P = 3%

Depth	Vegetation	Soil Type	Soil Color	Redoximorphic Features (mottles)	Coarse Fragments % by Volume	Soil Structure	Soil Consistency (Moist)	Other
A	B	Soil Horizon/ Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Depth	Color	Percent	Gravel Cobbles & Stones
0-5"		Ap	FSL	10 YR 7/2			-	-
5-10"		Bu.	FSL	10 YR 5/6			-	-
10-20"		Bu.	FSL	25 Y 6/4			-	-
20-30"		C	Crusty LS	25 Y 4/2			< 10%	M
30"-120"							10%	VF
							10%	Very Dense, Hard Packed till in C Horizon

Depth (in.)	Soil Horizon/ Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features (mottles)	Coarse Fragments % by Volume	Soil Structure	Soil Consistency (Moist)	Other
A	B	Soil Horizon/ Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Depth	Color	Percent	Gravel Cobbles & Stones
0-5"		Ap	FSL	10 YR 7/2			-	-
5-10"		Bu.	FSL	10 YR 5/6			-	-
10-20"		Bu.	FSL	25 Y 6/4			-	-
20-30"		C	Crusty LS	25 Y 4/2			< 10%	M
30"-120"							10%	VF
							10%	Firm in Place Till, Many Cobbles & Boulders
							10%	Loose in Hand Cobbles & Boulders

Additional Notes: No Weepings, No SU, No Mottling Observed. Very Dense, Hard Packed till in C Horizon.



**Massachusetts Department of Environmental Protection
Bureau of Resource Protection – Wastewater Permitting Program
Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal**

Builders Lot 6
Site Address or Map/Lot Number

C. On-Site Review (minimum of two holes required at every proposed disposal area)

Deep Observation Hole: Date: 8/26/15 Time: 11:15 Weather: Sunny 75°

1. Deep Hole Number 6C Location (Identify on Plan): Lot 6

2. Land Use: Wooded Surface Stones: — Slope (%): 0 Vegetation: Wooded
Landform: Moraine Position on landscape:

3. Distances from: Open Water Body ft. Drainage Way ft. Possible Wet Area ft.

Property Line ft. Drinking Water Well ft. Other ft.

Parent Material: F. Coarse loamy soil deposit over sandy basal till Unsuitable Materials Present: Yes No

If Yes: Disturbed Soil Fill Material Impervious Layer(s) Weathered/Fractured Rock Bedrock

5. Groundwater Observed: Yes No
If Yes: Depth Weeping from Pit — Standing Water in Hole 114" Estimated Depth to High Groundwater: > 114"

If Yes: Depth Weeping from Pit — Standing Water in Hole 114" Estimated Depth to High Groundwater: > 114"

If Yes: Depth Weeping from Pit — Standing Water in Hole 114" Estimated Depth to High Groundwater: > 114"

Depth (In.)	Soil Horizon/ Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features (mottles)			Coarse Fragments % by Volume		Soil Structure	Soil Consistency (Moist)	Other
				Depth	Color	Percent	Gravel	Cobbles & Stones			
0-2"	A _p	F _{SL}	10 YR 2/2				—	—	6	VF	
2-20"	B _{w1}	F _{SL}	10 YR 5/6				—	—	—	VF	Many Roots
20-36"	B _{w2}	F _{SL}	2.5 Y 6/4				—	< 10%	M	VF	Wetland + Bank Roots
36-114"	C	Gravelly LS	2.5 Y 4/2				20%	< 10%	SL	Formation Till, Many Large in Bank Colluviums	

Additional Notes No Weeping, No SW, No Mottling observed. Dense Hard packed Till in C horizon.



**Massachusetts Department of Environmental Protection
Bureau of Resource Protection – Wastewater Permitting Program**

Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

Builders Lot 6

Site Address or Map/Lot Number

C. On-Site Review (minimum of two holes required at every proposed disposal area)

Deep Observation Hole: Date: 8/26/15 Time: 12:15 Weather: Sunny 75°

1. Deep Hole Number 6D Location (Identify on Plan): Lot 6

2. Land Use: Icefield Surface Stones: — Slope (%): 0 Vegetation: Weed

Landform: Moraine

Position on landscape:

3. Distances from: Open Water Body — ft. Drainage Way — ft. Possible Wet Area — ft.

Property Line — ft. Drinking Water Well — ft. Other — ft.

4. Parent Material: Some Unsuitable Materials Present: Yes No

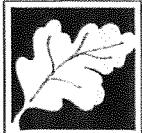
If Yes: Disturbed Soil Fill Material Impervious Layer(s) Weathered/Fractured Rock Bedrock

5. Groundwater Observed: Yes No

If Yes: Depth Weeping from Pit — Standing Water in Hole — Estimated Depth to High Groundwater: > 108'

A	B	Soil Horizon/ Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features (mottles)			Coarse Fragments % by Volume		Soil Structure	Soil Consistency (Moist)	Other
					Depth	Color	Percent	Gravel	Cobbles & Stones			
0-2"	A _p	PSL	10 YR 4/2					—	—	G	VF	
2-3"	B _s	FSL	2.5 Y 4/4					—	< 10%	M	VF	
36-108"	C	Gravelly LS	2.5 Y 4/2					20%	< 10%	SC	Till with Inclusions of Sand and gravel	

Additional Notes: No Mottling, No SW, No Molding Observed. Low layer in C above depth is sand w/ no cobbles.
Several e 108"



Massachusetts Department of Environmental Protection
Bureau of Resource Protection – Wastewater Permitting Program
Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

Builders Lot 7

Site Address or Map/Lot Number

C. On-Site Review (minimum of two holes required at every proposed disposal area)

Deep Observation Hole: Date: 8/16/15 Time: 1:17 Weather: Sunny So.

1. Deep Hole Number 7A Location (Identify on Plan): Lot 7

2. Land Use: Dreded Surface Stones: - Slope (%): 5% Vegetation: Wetland

Landform: Moraine Position on landscape:

3. Distances from: Open Water Body ft. Drainage Way ft. Possible Wet Area ft.

Property Line ft. Drinking Water Well ft. Other ft.

Firable Coarse / Gravel Deposits over Sandy Base / Tree Trunk Deposits over

4. Parent Material: Firable Sandy Base / Tree Trunk Deposits over Unsuitable Materials Present: Yes No

If Yes: Disturbed Soil Fill Material Impervious Layer(s) Weathered/Fractured Rock Bedrock

5. Groundwater Observed: Yes No

If Yes: Depth Weeping from Pit in Standing Water in Hole 10" ^t Estimated Depth to High Groundwater:

Depth (In.)		Soil Horizon/ Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features (mottles)			Coarse Fragments % by Volume	Soil Structure	Soil Consistency (Moist)	Other
A	B				Depth	Color	Percent				
0-2"	<i>Ap</i>	<i>FSL</i>	<i>10 YR 2/2</i>				—	—	G	VR	
2-32"	<i>Bw</i>	<i>FSL</i>	<i>2.5 Y 6/4</i>				—	< 10%	M	VF	
32"-100"	<i>C</i>	<i>Gravelly Ls</i>	<i>2.5 Y 4/2</i>				10%	< 10%	SC	Firm in Place Loose in Hand Dense	

Additional Notes Perfused @ 100", No piping, No SU, No Mattress Observe

Steffy
(774) 202 0054



Massachusetts Department of Environmental Protection
Bureau of Resource Protection – Wastewater Permitting Program
Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

Builders Lot 7

Site Address or Map/Lot Number

C. On-Site Review (minimum of two holes required at every proposed disposal area)

Deep Observation Hole: Date: 8/24/15 Time: 2:40 Weather: Sunny 80°

1. Deep Hole Number 7c Location (Identify on Plan): Lot 7

2. Land Use: Wooded Surface Stones: — Slope (%): 5%, Vegetation: Woods

Landform: Moraine Position on landscape:

3. Distances from: Open Water Body ft. Drainage Way ft. Possible Wet Area ft.

Property Line ft. Drinking Water Well ft. Other ft.

4. Parent Material: Same Unsuitable Materials Present: Yes No

If Yes: Disturbed Soil Fill Material Impervious Layer(s) Weathered/Fractured Rock Bedrock

5. Groundwater Observed: Yes No
If Yes: Depth Weeping from Pit — Standing Water in Hole — Estimated Depth to High Groundwater: 7/10 ft.

A	B	Soil Horizon/ Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features (mottles)			Coarse Fragments % by Volume		Soil Structure	Soil Consistency (Moist)	Other
					Depth	Color	Percent	Gravel	Cobbles & Stones			
0-2"	Ap	FSL	10 YR 1/2				—	—	—	lo	VF	
2"-4"	Bw	F82	2.5 Y 6/4				—	—	—	—	VF	
4"-10"	C	Cravkly LS	2.5 Y 4/2				20%	<10%	11%	SL	Firm in place Loose in hand	Rhizel

Additional Notes Rustic & 100'. No weeping, no shrubs, no nothing



**Massachusetts Department of Environmental Protection
Bureau of Resource Protection – Wastewater Permitting Program
Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal**

Bridger Lot 7

Site Address or Map/Lot Number

C. On-Site Review (minimum of two holes required at every proposed disposal area)

Deep Observation Hole: Date: 8/26/15 Time: 2:15 Weather: Sunny 80°

1. Deep Hole Number 7D Location (Identify on Plan): Lot 7
2. Land Use: Wooded Surface Stones: _____ Slope (%): ≤ % Vegetation: Wooded
3. Distances from: Open Water Body ft. Drainage Way ft. Possible Wet Area ft.
Property Line ft. Drinking Water Well ft. Other ft.
4. Parent Material: Same Unsuitable Materials Present: Yes No
- If Yes: Disturbed Soil Fill Material Impervious Layer(s) Weathered/Fractured Rock Bedrock
5. Groundwater Observed: Yes No
If Yes: Depth Weeping from Pit Standing Water in Hole Estimated Depth to High Groundwater: > 104"

Depth (in.)		Soil Horizon/ Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features (mottles)			Coarse Fragments % by Volume	Soil Structure	Soil Consistency (Moist)	Other
A	B				Depth	Color	Percent				
0-2"	Ap	FSL	10 YR 2/2		-	-	-		6	VF	
2-28"	Bw	FSL	2.5 Y 6/4		-	-	-	< 10%	M	VF	
28"-104"	C	Cassette LS	2.5 Y 4/2		20%	< 10%	56	Firm in Place Loose in Hand Rounded			

Additional Notes *No weeping, no SW, no nothing observed. Natural @ 104".*



**Massachusetts Department of Environmental Protection
Bureau of Resource Protection – Wastewater Permitting Program
Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal**

Bridges Lot 8

Site Address or Map/Lot Number

C. On-Site Review (minimum of two holes required at every proposed disposal area)

Deep Observation Hole: Date: 8/27/15

Time: 9:02 AM Weather: Sunny 70°

1. Deep Hole Number 8A

Location (Identify on Plan): Lot 8

2. Land Use: Wooded

Surface Stones: — Slope (%): 3% Vegetation: Wooded

Landform: Moraine Position on landscape:

3. Distances from: Open Water Body ft. Drainage Way ft. Possible Wet Area ft.

Property Line ft. Drinking Water Well ft. Other ft.

*F. George Loring Estate Deposits over
Sandy Basalt*

Parent Material: Unsuitable Materials Present: Yes No

If Yes: Disturbed Soil Fill Material Impervious Layer(s) Weathered/Fractured Rock Bedrock

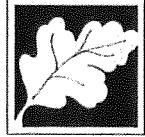
5. Groundwater Observed: Yes No

If Yes: Depth Weeping from Pit — Standing Water in Hole 10" Estimated Depth to High Groundwater: > 120"

$$P = 4.33 \text{ min/in}$$

Depth (In.)		Soil Horizon/ Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features (mottles)			Coarse Fragments % by Volume		Soil Structure	Soil Consistency (Moist)	Other
A	B				Depth	Color	Percent	Gravel	Cobbles & Stones			
0-2"	Ap	FSL	10YR 2/2					—	—	G	VF	
2-36"	Bw	PS	2.5 Y 6/4					—	< 10%	M	VF	Roots
36-126"	C	Crust	2.5 Y 4/2	10Y	7.5 YR 4/4	30%	20%	< 10%	SL	Firm in Place Loosened in Hand Cobbles & Small Boulders		

Additional Notes No SL, No Weeping, Refusal @ 120"



**Massachusetts Department of Environmental Protection
Bureau of Resource Protection – Wastewater Permitting Program
Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal**

Builders Lot 8

Site Address or Map/Lot Number

C. On-Site Review (minimum of two holes required at every proposed disposal area)

Deep Observation Hole: Date: 8/27/15 Time: 9:45 Weather: Sunny 70°

1. Deep Hole Number 8B

Location (Identify on Plan): Lot 8

2. Land Use: Wooded Surface Stones: — Slope (%): 3% Vegetation: Wooded

Landform: Moraine Position on landscape:

3. Distances from: Open Water Body — ft. Drainage Way — ft. Possible Wet Area — ft.

Property Line — ft. Drinking Water Well — ft. Other — ft.

4. Parent Material: Same Unsuitable Materials Present: Yes No

If Yes: Disturbed Soil Fill Material Impervious Layer(s) Weathered/Fractured Rock Bedrock

$$P = 2.07 \text{ min/in}$$

5. Groundwater Observed: Yes No Standing Water in Hole — Estimated Depth to High Groundwater: 7 / 04 "

Depth (in.)	Soil Horizon/ Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features (mottles)			Coarse Fragments % by Volume		Soil Structure	Soil Consistency (Moist)	Other
				Depth	Color	Percent	Gravel	Cobbles & Stones			
0-1"	A	Ap	RSL	10 YR ½			—	—	Loamy	VF	
1"-34"	B	Ps	25 Y 6/4				—	10%	Very	Very	Roots
34"-109"	C	Gross LS	25 Y 4/2				20%	10%	Stony	Firm	In Place Loose in bedrock

Additional Notes No Silt, No Mottling, No Holes @ 104".



**Massachusetts Department of Environmental Protection
Bureau of Resource Protection – Wastewater Permitting Program
Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal**

Builders lot 8

Site Address or Map/Lot Number

C. On-Site Review (minimum of two holes required at every proposed disposal area)

Deep Observation Hole: Date: 8/20/15 Time: 9:30 Weather: Sunny 70°

1. Deep Hole Number 8c Location (Identify on Plan): Lot 8

2. Land Use: Wooded Surface Stones: — Slope (%): ≤ 1% Vegetation: Wooded

Landform: Moraine Position on landscape:

3. Distances from: Open Water Body ft. Drainage Way ft. Possible Wet Area ft.

Property Line ft. Drinking Water Well ft. Other ft.

4. Parent Material: Scarne Unsuitable Materials Present: Yes No

If Yes: Disturbed Soil Fill Material Impervious Layer(s) Weathered/Fractured Rock Bedrock

5. Groundwater Observed: Yes No Standing Water in Hole — Estimated Depth to High Groundwater: > 10'

A	B	Soil Horizon/ Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features (mottles)			Gravel Percent	Cobbles & Stones	Coarse Fragments % by Volume	Soil Structure	Soil Consistency (Moist)	Other
					Depth (in.)	Color	Percent						
0-2"	Ap	FSL	10YR 2/2					—	—	—	G	VF	
2"-34"	Bw	FSL	2.5Y 4/4					—	—	< 10%	M	VF	Mud Roots
34"-120"	C	Cravell 2S	2.5Y 4/2	11D	2.5Y 4/4	3%	20%	< 10%	St	Firm in Place Cobbles & Large Hard Particles			

Additional Notes No SW, No Weeping, No soil e 120'.



**Massachusetts Department of Environmental Protection
Bureau of Resource Protection – Wastewater Permitting Program**

Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

Builders lot 8
Site Address or Map/Lot Number

C. On-Site Review (minimum of two holes required at every proposed disposal area)

Deep Observation Hole: Date: 8/21/15 Time: 10:00 Weather: Sunny 70°

1. Deep Hole Number 8D

2. Land Use: Wooded Surface Stones: - Slope (%): 1/2 Vegetation: Wooded

Landform: Moraine Position on landscape:

Depth	Start Soak

3. Distances from: Open Water Body — ft. Drainage Way — ft. Possible Wet Area — ft.

Property Line — ft. Drinking Water Well — ft. Other — ft.

4. Parent Material: Shale Unsuitable Materials Present: Yes No

If Yes: Disturbed Soil Fill Material Impervious Layer(s) Weathered/Fractured Rock Bedrock

5. Groundwater Observed: Yes No

If Yes: Depth Weeping from Pit — Standing Water in Hole — Estimated Depth to High Groundwater: > 108"

A	B	Soil Horizon/ Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features (mottles)			Coarse Fragments % by Volume		Soil Structure	Soil Consistency (Moist)	Other
					Depth	Color	Percent	Gravel	Cobbles & Stones			
0-1"	Ap	FSL	10YR 2/2					—	—	G	VF	Roots
1"-36"	Bw	FSL	2.5Y 4/4					—	< 10%	M	VF	
36"-108"	C	Loamy LS	2.5Y 4/2					20%	< 10%	S6	Firm in Place loose & hard boulders	

Additional Notes No Swelling, No Mottling. Normal @ 108".



**Massachusetts Department of Environmental Protection
Bureau of Resource Protection – Wastewater Permitting Program
Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal**

Bridgers Lot 9

Site Address or Map/Lot Number

C. On-Site Review (minimum of two holes required at every proposed disposal area)

Deep Observation Hole: Date: 8/27/15 Time: 11:50 Weather: Sunny 75°

1. Deep Hole Number 9A

Location (Identify on Plan): Lot 9

2. Land Use: Vacant

Surface Stones: 0 Slope (%): 15 Vegetation: Wooly

Landform: Alluvium

Position on landscape:

3. Distances from: Open Water Body ft. Drainage Way ft. Possible Wet Area ft.

Property Line ft. Drinking Water Well ft. Other ft.

Close to an Erosion Deposit over

Parent Material: E. Sediments Unstable Materials Present: Yes No

If Yes: Disturbed Soil Fill Material Impervious Layer(s) Weathered/Fractured Rock Bedrock

5. Groundwater Observed: Yes No

Standing Water in Hole 96"

If Yes: Depth Weeping from Pit 96" Estimated Depth to High Groundwater: 96"

A	B	Depth (In.)	Soil Horizon/ Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features (mottles)			Gravel Percent	Cobbles & Stones	Coarse Fragments % by Volume	Soil Structure	Soil Consistency (Moist)	Other
						Depth	Color	Percent						
0-2"	Ap	FSL	10 YR 2/2					0	0	0	<10%	G	VF	
2"-22"	Bw	FSL	10 YR 4/6								<10%	M	VR	<i>Many Roots</i>
22"-98"	C	Cravall 8 LS	2.5 Y 4/2 96"	7.5 YR 2/2	3%	20%	10%	56					Firm in Place	<i>Cobbles & Boulders</i>

Additional Notes No So, No Weepin, Refused @ 98".



**Massachusetts Department of Environmental Protection
Bureau of Resource Protection – Wastewater Permitting Program
Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal**

Builders Lot 9

Site Address or Map/Lot Number

C. On-Site Review (minimum of two holes required at every proposed disposal area)

Deep Observation Hole: Date: 8/27/15 Time: 12:00 Weather: Sunny 75°

1. Deep Hole Number 9B Location (Identify on Plan): Lot 9

2. Land Use: Wooded Surface Stones: ~ Slope (%): 15 Vegetation: Wooded

Landform: Moraine Position on landscape:

3. Distances from: Open Water Body ft. Drainage Way ft. Possible Wet Area ft.

Property Line ft. Drinking Water Well ft. Other ft.

4. Parent Material: Same Unsuitable Materials Present: Yes No

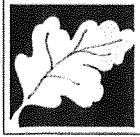
If Yes: Disturbed Soil Fill Material Impervious Layer(s) Weathered/Fractured Rock Bedrock

5. Groundwater Observed: Yes No Standing Water in Hole Yes Estimated Depth to High Groundwater: > 114"

If Yes: Depth Weeping from Pit

Depth (In.)	Soil Horizon/ Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features (mottles)			Coarse Fragments % by Volume	Soil Structure	Soil Consistency (Moist)	Other
				Depth	Color	Percent				
0-2"	A	Ap	FSL	10 YR 2/2			0	0	G	VF
2"-4"	Bw	FSL	10 YR 4/6				< 10%	M	VF	<i>More Roots</i>
4"-14"	C	Gravelly LS	2.5Y 4/2				20%	SL	Firm in Place Loose in Hand	<i>Gravel & Boulders</i>

Additional Notes No SW, No Lining, No Muffling. Refuse @ 14"



Massachusetts Department of Environmental Protection
Bureau of Resource Protection – Wastewater Permitting Program
Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

Builders Lot 9

Site Address or Map/Lot Number

C. On-Site Review (minimum of two holes required at every proposed disposal area)

Deep Observation Hole: Date: 8/27/15 Time: 12:15 Weather: Scattered 75°

1. Deep Hole Number 9c Location (Identify on Plan): Lot 9
2. Land Use: Blended Surface Stones: - Slope (%): 15 Vegetation: Wooded
3. Distances from: Open Water Body ft. Drainage Way ft. Possible Wet Area ft.
Property Line ft. Drinking Water Well ft. Other ft.
4. Parent Material: Sand Unsuitable Materials Present: Yes No

If Yes: Disturbed Soil Fill Material Impervious Layer(s) Weathered/Fractured Rock Bedrock

5. Groundwater Observed: Yes No
If Yes: Depth Weeping from Pit Standing Water in Hole Estimated Depth to High Groundwater: >108"

Depth (In.)	Soil Horizon/ Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features (mottles)			Coarse Fragments % by Volume		Soil Structure	Soil Consistency (Moist)	Other
				A	B	Depth	Color	Percent			
0-1"	Ap	FSL	10YR 2/2					—	6	✓	
1-24"	Dw	FSL	10YR 4/6					10%	10%	VF	Medium Runoff
24"-108"	C LS	Gravelly LS	2.5 Y 4/2					20%	10%	SC	Firm in Place Cobbles + Loose in Head Boulders

Additional Notes: None, no weeping, no nothing. Nitzel c 108"



**Massachusetts Department of Environmental Protection
Bureau of Resource Protection – Wastewater Permitting Program
Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal**

Builders Lot 9

Site Address or Map/Lot Number

C. On-Site Review (minimum of two holes required at every proposed disposal area)

Deep Observation Hole: Date: 8/27/15 Time: 12:40 Weather: Sunny 75°

1. Deep Hole Number 9D Location (Identify on Plan): lot 9
2. Land Use: Wooded Surface Stones: - Slope (%): 15 Vegetation: Woods
3. Distances from: Open Water Body ft. Drainage Way ft. Possible Wet Area ft.
Property Line ft. Drinking Water Well ft. Other ft.
4. Parent Material: Same Unsuitable Materials Present: Yes No
5. Groundwater Observed: Yes No
If Yes: Depth Weeping from Pit — Standing Water in Hole — Estimated Depth to High Groundwater: 100'

A	B	Depth (in.)	Soil Horizon/ Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Reodoximorphic Features (mottles)			Coarse Fragments % by Volume			Soil Structure	Soil Consistency (Moist)	Other
						Depth	Color	Percent	Gravel	Cobbles & Stones				
0-2"	Ap	0-2"	FSL	10 yr 2/2					—	—	b	Vf		
2"-29"	Bw	2"-29"	FSL	10 yr 4/6					10%	10%	m	Vf	<i>1" core breaks</i>	
29"-100"	C	29"-100"	Granular LS	2.5 yr 4/2	100"	75 yr 5/2	3/	20%	10%	5%	Firm in place Cobbles & large in Hand Boulders			

Additional Notes No Saturated Refusal @ 100'



**Massachusetts Department of Environmental Protection
Bureau of Resource Protection – Wastewater Permitting Program
Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal**

Bullock's lot 10

Site Address or Map/Lot Number

C. On-Site Review (minimum of two holes required at every proposed disposal area)

Deep Observation Hole: Date: 9/1/15 Time: 10:00 Weather: Overcast, Drizzle, 60°

1. Deep Hole Number 10 A Location (Identify on Plan): Left 10

2. Land Use: Woods Surface Stones: N/A Slope (%): 15% Vegetation: Wooded

Landform: Moraine Position on landscape: _____

3. Distances from: Open Water Body ft. Drainage Way ft. Possible Wet Area ft.

Property Line ft. Drinking Water Well ft. Other ft.

4. Parent Material: Sand Unstable Materials Present: Yes No

If Yes: Disturbed Soil Fill Material Impervious Layer(s) Weathered/Fractured Rock Bedrock

5. Groundwater Observed: Yes No

If Yes: Depth Weeping from Pit ft. Standing Water in Hole ft. Estimated Depth to High Groundwater: > 120"

Depth (In.)	Soil Horizon/ Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features (mottles)			Coarse Fragments % by Volume		Soil Structure	Soil Consistency (Moist)	Other
				Depth	Color	Percent	Gravel	Cobbles & Stones			
0-6"	A	Ps	10 YR 3/3				-	-	C	VF	
6"-10"	Bu	FSL	10 YR 5/6				-	-	M	VF	loamy bottoms
10"-16"	C	Loamy fine sand	2.5 Y 5/3				-	-	A	VF	"
16"-20"	C ₂	S	2.5 Y 4/2				20	10	SC	firm in large in H bedrock & boulders	

Additional Notes: No soil, no weeping, no mottling observed to 120".



**Massachusetts Department of Environmental Protection
Bureau of Resource Protection – Wastewater Permitting Program
Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal**

Site Address or Map/Lot Number

Boulders lot 10

C. On-Site Review (minimum of two holes required at every proposed disposal area)

Deep Observation Hole: Date: 9/1/15 Time: 10:30 Weather: Drizzle 60°

1. Deep Hole Number 10/3

Location (Identify on Plan): 1st 10

2. Land Use: Woods Surface Stones: NA Slope (%): 0.0%

Vegetation: 0.0%

Landform: Moraine

Position on landscape:

3. Distances from: Open Water Body ft. Drainage Way ft. Possible Wet Area ft.
 Property Line ft. Drinking Water Well ft. Other ft.
4. Parent Material: Sand Unsuitable Materials Present: Yes No

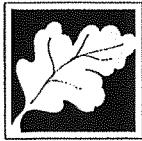
If Yes: Disturbed Soil Fill Material Impervious Layer(s) Weathered/Fractured Rock Bedrock

5. Groundwater Observed: Yes No

If Yes: Depth Weeping from Pit ft. Standing Water in Hole ft. Estimated Depth to High Groundwater: 7/20

Depth (In.)	Soil Horizon/ Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features (mottles)			Gravel Percent	Cobbles & Stones	Coarse Fragments % by Volume	Soil Structure	Soil Consistency (Moist)	Other
				A	B	Depth						
0-6"	Ap	FSL	10 yr ½				—	—	—	6	VF	
6"-36"	Bu	FSL	10 yr ½				—	—	—	10	M	VF
36"-60"	C ₁	LFS	25 yr ½				—	—	—	10	M	VF
60"-120"	C ₂	S	25 yr ½				20	10	50	50	Firm in P Loose in H	Cobbles & Boulders

Additional Notes: No SW, No weeping, No mottling observed.



**Massachusetts Department of Environmental Protection
Bureau of Resource Protection – Wastewater Permitting Program
Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal**

Bullards Lot 10

Site Address or Map/Lot Number

C. On-Site Review (minimum of two holes required at every proposed disposal area)

Deep Observation Hole: Date: 9/11/15 Time: 11:00 Weather: Cloudy 60°

1. Deep Hole Number bC Location (Identify on Plan): Lot 10
2. Land Use: Woods Surface Stones: N/A Slope (%): 15 Vegetation: Dead
3. Distances from: Open Water Body ft. Drainage Way ft. Possible Wet Area ft.
Property Line ft. Drinking Water Well ft. Other ft.
4. Parent Material: Sand Unsuitable Materials Present: Yes No
- If Yes: Disturbed Soil Fill Material Impervious Layer(s) Weathered/Fractured Rock Bedrock
5. Groundwater Observed: Yes No
If Yes: Depth Weeping from Pit ft. Standing Water in Hole ft. Estimated Depth to High Groundwater: > 120'

P

A	B	Depth (In.)	Soil Horizon/ Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features (moths)			Coarse Fragments % by Volume	Soil Structure	Soil Consistency (Moist)	Other
						Depth	Color	Percent				
0'-6"	A _p	PSL	16 YR 3/1					-	-	G	VF	
6'-32"	B _w	PSL	10 YR 5/6					-	10	M	VF	Boulders
32"-60"	C ₁	Coarse Sand	2.5 Y 4/2					25	10	SL	Firm in P Loose in H	Cobbles & Boulders
60"-120"	C ₂	Fine Sand	2.5 Y 5/3					-	10	M	Vf	Boulders

Additional Notes No Sulfur, No Weeping, No nothing observed to 120'



**Massachusetts Department of Environmental Protection
Bureau of Resource Protection – Wastewater Permitting Program
Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal**

Buillets lot 10

Site Address or Map/Lot Number

C. On-Site Review

(minimum of two holes required at every proposed disposal area)

Deep Observation Hole: Date: 9/11/15 Time: 1:30 Weather: Overcast 60°

1. Deep Hole Number 10 D Location (Identify on Plan): lot 10

2. Land Use: Woods Surface Stones: N/A Slope (%): 15 Vegetation: Vegetated

Landform: Moraine Position on landscape:

3. Distances from: Open Water Body ft. Drainage Way ft. Possible Wet Area ft.

Property Line ft. Drinking Water Well ft. Other ft.

4. Parent Material: Sand Unsuitable Materials Present: Yes No

If Yes: Disturbed Soil Fill Material Impervious Layer(s) Weathered/Fractured Rock Bedrock

5. Groundwater Observed: Yes No
If Yes: Depth Weeping from Pit ft. Standing Water in Hole ft. Estimated Depth to High Groundwater:

Min water
D = 2 min/in

Depth (In.)	Soil Horizon/ Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features (mottles)			Coarse Fragments % by Volume		Soil Structure	Soil Consistency (Moist)	Other
				Depth	Color	Percent	Gravel	Cobbles & Stones			
0-6"	A	Ap	PSL	10 YR 3/3			-	-	6	VF	
6"-36"	B ₁	PSL	10 YR 5/6				-	10	m	VF	Boulders
36"-64"	C ₁	Coarse Sand	25 Y 4/2				20	10	SL	Firm in P loose in H	Bubbles & Particles
64"-120"	C ₂	Fine Sand	25 Y 5/3				-	10	m	VF	Boulders

Additional Notes No SW, No Weeping, No nothing observed to 120".



**Massachusetts Department of Environmental Protection
Bureau of Resource Protection – Wastewater Permitting Program**

Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

Site Address or Map/Lot Number:

Bridges Lot 11

C. On-Site Review (minimum of two holes required at every proposed disposal area)

Deep Observation Hole: Date: 9/10/15 Time: 12:45 Weather: Overcast 20°

1. Deep Hole Number 11-A

Location (Identify on Plan): Lot 11

2. Land Use: Woods Surface Stones: NA Slope (%): 1-3 Vegetation: Wooded

Landform: Moraine Position on landscape:

3. Distances from: Open Water Body ft. Drainage Way ft. Possible Wet Area ft.

Property Line ft. Drinking Water Well ft. Other ft.

4. Parent Material: Sandstone Unsuitable Materials Present: Yes No

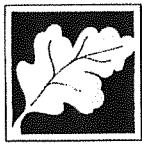
If Yes: Disturbed Soil Fill Material Impervious Layer(s) Weathered/Fractured Rock Bedrock

5. Groundwater Observed: Yes No

If Yes: Depth Weeping from Pit ft. Standing Water in Hole ft. Estimated Depth to High Groundwater: 120 + "

Depth (In.)	Soil Horizon/ Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features (mottles)			Coarse Fragments % by Volume		Soil Structure	Soil Consistency (Moist)	Other
				Depth	Color	Percent	Gravel	Cobbles & Stones			
0-2	A	Ap	10 YR 3/3				-	-	G	VF	
2-16	Bw.	FsL	10 YR 4/4				-	-	M	VF	<i>Many roots</i>
16-26	Bw.	FsL	2.5 Y 5/6				-	-	M	VF	
26-34	C ₁	S	2.5 Y 4/2				10	20	SC	Firm in P Cobbles & Boulders	
34-170	C ₂	S	2.5 Y 3/1				10	10	SC	Firm in P Cobbles & Boulders	

Additional Notes: No Stains, No Weeping, No Mottles Observed.



**Massachusetts Department of Environmental Protection
Bureau of Resource Protection – Wastewater Permitting Program
Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal**

Builders lot 11

Site Address or Map/Lot Number

C. On-Site Review (minimum of two holes required at every proposed disposal area)

Deep Observation Hole: Date: 9/10/15 Time: 1:00 Weather: overcast 70°

1. Deep Hole Number 113 Location (Identify on Plan): lot 11

2. Land Use: Woods Surface Stones: N/A Slope (%): 1-3 Vegetation: wooded

Landform: Aeraine Position on landscape:

3. Distances from: Open Water Body ft. Drainage Way ft. Possible Wet Area ft.

Property Line ft. Drinking Water Well ft. Other ft.

4. Parent Material: Same Unsuitable Materials Present: Yes No

If Yes: Disturbed Soil Fill Material Impervious Layer(s) Weathered/Fractured Rock Bedrock

5. Groundwater Observed: Yes No
If Yes: Depth Weeping from Pit ft. Standing Water in Hole ft. Estimated Depth to High Groundwater: 120 + "

$P = \min(2^{\frac{m}{10}}, 1)$

120 + "

Depth (in.)	Soil Horizon/ Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features (mottles)			Coarse Fragments % by Volume	Soil Structure	Soil Consistency (Moist)	Other
				Depth	Color	Percent				
A	B									
0-2	Ap	FSL	10 YR 3/4				-	-	G	VF
2-18	Bu.	FSL	10 YR 4/4				-	-	M	VF
18-30	Bw ₂	FSL	2.5 Y 7/6				-	-	M	VF
30-84	C ₁	S	2.5 Y 1/2				10	20	SL	Firm int Loose in H Boulders
84-120	C ₂	S	2.5 Y 3/1				10	10	SL	Firm in P Loose in H

Additional Notes No SW, No Weeping, Ab M. Holes Observed. Estimated Hwy above Line 1 @ 1/2"



**Massachusetts Department of Environmental Protection
Bureau of Resource Protection – Wastewater Permitting Program
Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal**

Site Address or Map/Lot Number

C. On-Site Review (minimum of two holes required at every proposed disposal area)

Deep Observation Hole: Date: 9/10/15 Time: 12:10 Weather: Overcast 70°s

1. Deep Hole Number 1C Location (Identify on Plan): Lot 11

2. Land Use: Woods Surface Stones: N/A Slope (%): 1-3 Vegetation: Wooded

Landform: Moraine Position on landscape:

3. Distances from: Open Water Body ft. Drainage Way ft. Possible Wet Area ft.

Property Line ft. Drinking Water Well ft. Other ft.

4. Parent Material: Sand Unsuitable Materials Present: Yes No

If Yes: Disturbed Soil Fill Material Impervious Layer(s) Weathered/Fractured Rock Bedrock

5. Groundwater Observed: Yes No
If Yes: Depth Weeping from Pit ft. Standing Water in Hole ft. Estimated Depth to High Groundwater: 120"

A		B		Soil Horizon/ Layer		Soil Texture (USDA)		Soil Matrix: Color-Moist (Munsell)		Redoximorphic Features (mottles)		Coarse Fragments % by Volume		Soil Structure		Soil Consistency (Moist)		Other	
"	"	A _p	F _{5L}	10 Yil 3/3						-	-			6		VF			
"-2"	"	B _u	F _{5L}	10 Yil 4/4						-	-							Muddy Roots	
"-2"	"	B _{w₁}	F _{5L}	25 Y 5/6						-	-								
32"-60"		C ₁	S	25 Y 4/2						10	20	56						Firm in P Loose in H	
60"-120"		C ₂	S	25 Y 3/1						10	10	56						Cobbles & Boulders	

Additional Notes No SW, No Weeping, No Mottles Observed.



**Massachusetts Department of Environmental Protection
Bureau of Resource Protection – Wastewater Permitting Program
Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal**

Dillers 101

Site Address or Map/Lot Number

C. On-Site Review (minimum of two holes required at every proposed disposal area)

Deep Observation Hole: Date: 9/10/15 Time: 11:50 Weather: Overscast 70°

1. Deep Hole Number 1 D

Location (Identify on Plan): Loc 11

2. Land Use: Woods Surface Stones: N/A Slope (%): 1-3 Vegetation: Wooded

Landform: Moraine

Position on landscape: On ridge

3. Distances from: Open Water Body ft. Drainage Way ft. Possible Wet Area ft.

Property Line ft. Drinking Water Well ft. Other ft.

*From house 50' down slope over
Unsuitable Materials Present: Yes No*

4. Parent Material: Soil Sand Bedrock over

If Yes: Fill Material Impervious Layer(s) Weathered/Fractured Rock Bedrock

5. Groundwater Observed: Yes No

If Yes: Depth Weeping from Pit ft. Standing Water in Hole ft. Estimated Depth to High Groundwater: 120+"

Depth (in.)	Soil Horizon/ Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features (mottles)			Coarse Fragments % by Volume	Soil Structure	Soil Consistency (Moist)	Other
				Depth	Color	Percent				
A	B									
0-2"	Ap	FSL	10 yr 3/3				-	-	G	VF
2"-15"	Bw ₁	FSL	10 yr 4/4				-	-	m	very soft
15"-30"	Bw ₂	FSL	25 yr 5/6				-	-	m	VF
30"-60"	C ₁	S	25 yr 4/2				10	20	SG	Firm in P Cobbles & Boulders
60"-120"	C ₂	S	25 yr 3/1				10	10	SG	Firm in P Cobbles & Boulders

Additional Notes: No SWL, No Weeping, No Mottles observed. Estimated HGL above bedrock, @ 120 "



**Massachusetts Department of Environmental Protection
Bureau of Resource Protection – Wastewater Permitting Program
Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal**

Welles Lot 12

Site Address or Map/Lot Number

C. On-Site Review (minimum of two holes required at every proposed disposal area)

Deep Observation Hole: Date: 7/14/15 Time: 12:05 Weather: Sunny 70°

1. Deep Hole Number 12.4 Location (Identify on Plan): Lot 12
2. Land Use: Woods Surface Stones: N/A Slope (%): 1-3 Vegetation: Jaund
Landform: Moraine Position on landscape:
3. Distances from: Open Water Body ft. Drainage Way ft. Possible Wet Area ft.
Property Line ft. Drinking Water Well ft. Other ft.
4. Parent Material: Stone Unsuitable Materials Present: Yes No
- If Yes: Disturbed Soil Fill Material Impervious Layer(s) Weathered/Fractured Rock Bedrock
- If Yes: Groundwater Observed: Yes No
If Yes: Depth Weeping from Pit ft. Standing Water in Hole ft. Estimated Depth to High Groundwater: 120 ft

$P = f \text{ min/in}$

Depth (In.)	Soil Horizon/ Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features (mottles)			Coarse Fragments % by Volume	Soil Structure	Soil Consistency (Moist)	Other
				Depth	Color	Percent				
A	B									
0-2	A1	FSL	10 YR 3/3				—	—	G	VF
2-20	Bw	FSL	10 YR 4/4				—	—	M	VF
20-30	C1	S	2.5 Y 4/2				—	—	M	Very Hard Roots
30-120	C2	S	2.5 Y 3/2				20 ⁺	20 ⁺	SC	Firm in P Loose in H

Additional Notes No SW, No Weeping, No Mottling



**Massachusetts Department of Environmental Protection
Bureau of Resource Protection – Wastewater Permitting Program
Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal**

Birds Lot 12

Site Address or Map/Lot Number

C. On-Site Review (minimum of two holes required at every proposed disposal area)

Deep Observation Hole: Date: 9/16/15 Time: 12:15 Weather: Sunny 70°

1. Deep Hole Number 123 Location (Identify on Plan): Lot 12

2. Land Use: Woods Surface Stones: NA Slope (%): 1-3 Vegetation: Wooded

Landform: Moraine Position on landscape:

3. Distances from: Open Water Body ft. Drainage Way ft. Possible Wet Area ft.

Property Line ft. Drinking Water Well ft. Other ft.

4. Parent Material: Sand Unsuitable Materials Present: Yes No

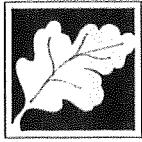
If Yes: Disturbed Soil Fill Material Impervious Layer(s) Weathered/Fractured Rock Bedrock

5. Groundwater Observed: Yes No

If Yes: Depth Weeping from Pit ft. Standing Water in Hole ft. Estimated Depth to High Groundwater: 120' +

A		B		Soil Matrix: Color-Moist (Munsell)	Depth	Redoximorphic Features (mottles)			Coarse Fragments % by Volume		Soil Structure	Soil Consistency (Moist)	Other
Depth (in.)	Soil Horizon/ Layer	Soil Texture (USDA)	Color			Percent	Gravel	Cobbles & Stones					
0-2	A1	PSL	10 YR 3/3				-	-	0	VF			
2-18	B1	PSL	10 YR 4/4				-	-	1	VF	Loamy Soil		
18-36	C1	S	25 Y 4/2				-	-	1	VF	Fine Sand No Nodules		
36-110	C2	S	25 Y 3/2				25	20	56	Firm in P loose in H			

Additional Notes No SW, No Weeping, No Mottling



**Massachusetts Department of Environmental Protection
Bureau of Resource Protection – Wastewater Permitting Program
Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal**

Dubbers lot 12

Site Address or Map/Lot Number

C. On-Site Review (minimum of two holes required at every proposed disposal area)

Deep Observation Hole: Date: 7/16/15 Time: 12:30 Weather: Cloudy 70°

1. Deep Hole Number 12C Location (Identify on Plan): lot 12

2. Land Use: Woods Surface Stones: N/A Slope (%): Wetland

Landform: Hillsides

Position on landscape:

3. Distances from: Open Water Body ft. Drainage Way ft. Possible Wet Area ft.

Property Line ft. Drinking Water Well ft. Other ft.

4. Parent Material: Sand Unstable Materials Present: Yes No

If Yes: Disturbed Soil Fill Material Impervious Layer(s) Weathered/Fractured Rock Bedrock

5. Groundwater Observed: Yes No

If Yes: Depth Weeping from Pit ft. Standing Water in Hole ft. Estimated Depth to High Groundwater: 120" + 5'

Depth (in.)	Soil Horizon/ Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features (mottles)			Coarse Fragments % by Volume		Soil Structure	Soil Consistency (Moist)	Other
				Depth	Color	Percent	Gravel	Cobbles & Stones			
0-2	A	PSL	10 YR 3/3				-	-	6	VF	
2-24	B	PSL	10 YR 4/4				-	-	11	VF	Roots, Fox Gullies
24-120	C ₁	S	2.5 Y 3/2				20+	20+	56	Firm P loose soil below 104"	Calcareous Boulders with stratified layers of loose sand above + below 104"

Additional Notes No Sulfur, No Leaching, No Mottling



**Massachusetts Department of Environmental Protection
Bureau of Resource Protection – Wastewater Permitting Program**

Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

Bridges lot 12

Site Address or Map/Lot Number

C. On-Site Review (minimum of two holes required at every proposed disposal area)

Deep Observation Hole: Date: 9/14/15 Time: 12:45 Weather: Sunny 70°

1. Deep Hole Number 1D Location (Identify on Plan): lot 12

2. Land Use: Woods Surface Stones: NA Slope (%): 1:2 Vegetation: Wooded

Landform: Moraine Position on landscape:
 3. Distances from: Open Water Body ft. Drainage Way ft. Possible Wet Area ft.
 Property Line ft. Drinking Water Well ft. Other ft.
 4. Parent Material: Same Unsuitable Materials Present: Yes No

If Yes: Disturbed Soil Fill Material Impervious Layer(s) Weathered/Fractured Rock Bedrock

5. Groundwater Observed: Yes No Standing Water in Hole ft. Estimated Depth to High Groundwater: 120" +
 If Yes: Depth Weeping from Pit ft.

$$P = 2 \text{ min/in}$$

Depth (in.)	Soil Horizon/ Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Reoxidomorphic Features (mottles)			Coarse Fragments % by Volume		Soil Structure	Soil Consistency (Moist)	Other
				Depth	Color	Percent	Gravel	Cobbles & Stones			
<u>0-2"</u>	<u>A</u>	<u>F3L</u>	<u>10 YR 3/3</u>				-	-	<u>C</u>	<u>VP</u>	<u>Plots.</u>
<u>2"-10"</u>	<u>Bw</u>	<u>F3L</u>	<u>10 YR 4/4</u>				-	-	<u>M</u>	<u>VP</u>	
<u>10"-120"</u>	<u>C1</u>	<u>S</u>	<u>2.5 Y 3/2</u>				<u>20+</u>	<u>20+</u>	<u>S6</u>	<u>Firm in P Loose in H</u>	<u>10% of Cover Sand along 40' + 120' long 90'</u>

Additional Notes: No Sog, No Weeping, No Mottling



**Massachusetts Department of Environmental Protection
Bureau of Resource Protection – Wastewater Permitting Program**

Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

Builders lot 13

Site Address or Map/Lot Number

C. On-Site Review (minimum of two holes required at every proposed disposal area)

Deep Observation Hole: Date: 9/23/15 Time: 10:30

Location (Identify on Plan): Lot 13

1. Deep Hole Number 13 13

2. Land Use: Woods Surface Stones: NA Slope (%): —

Vegetation: Wooded

Landform: Moraine Position on landscape:

3. Distances from: Open Water Body — ft. Drainage Way — ft. Possible Wet Area — ft.

Property Line — ft. Drinking Water Well — ft. Other — ft.

4. Parent Material: Sand Unsuitable Materials Present: Yes No

If Yes: Disturbed Soil Fill Material Impervious Layer(s) Weathered/Fractured Rock Bedrock

5. Groundwater Observed: Yes No

If Yes: Depth Weeping from Pit — Standing Water in Hole — Estimated Depth to High Groundwater: 120 + "

Depth (In.)	Soil Horizon/ Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features (mottles)			Coarse Fragments % by Volume	Soil Structure	Soil Consistency (Moist)	Other
				Depth	Color	Percent				
0-3	A _p	PSL	10 YR 3/3			—	—	6	VF	
3-20	B _w	PSL	10 YR 4/4			—	5	m	VF	<i>Many Bats</i>
20-120	C _i	S	2.5 Y 4/3			20 ⁺	20 ⁺	56	Firm in P Cobbles + Boulders loose in H	

Additional Notes No SW, No Weeping, No Mottling Observed



**Massachusetts Department of Environmental Protection
Bureau of Resource Protection – Wastewater Permitting Program**

Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

Boulders lot 13

Site Address or Map/Lot Number

C. On-Site Review (minimum of two holes required at every proposed disposal area)

- Deep Observation Hole:** Date: 9/15/15 Time: 10:45 Weather: Sunny 60°
 Location (Identify on Plan): Lot 13
1. Deep Hole Number 13-C
 2. Land Use: Boulders Surface Stones: N/A Slope (%): 20 Vegetation: Wooded
 Landform: Moraine
- Position on landscape:
 3. Distances from: Open Water Body _____ ft. Drainage Way _____ ft. Possible Wet Area _____ ft.
 Property Line _____ ft. Drinking Water Well _____ ft. Other _____ ft.
4. Parent Material: Sand Unsuitable Materials Present: Yes No
 If Yes: Disturbed Soil Fill Material Impervious Layer(s) Weathered/Fractured Rock Bedrock
5. Groundwater Observed: Yes No
 If Yes: Depth Weeping from Pit _____ Standing Water in Hole _____ Estimated Depth to High Groundwater: 10'
- P = 2 min/in

A		B		Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features (mottles)			Coarse Fragments % by Volume		Soil Structure	Soil Consistency (Moist)	Other
Depth (In.)	Soil Horizon/ Layer	Soil Texture (USDA)	Color		Depth	Percent	Gravel	Cobbles & Stones				
0-3	Ap	PSL	10 YR 3/3				-	-	6	VF		
3-10	BC	PSL	10 YR 4/4				-	-	5	rn	Many Pools	
10-42	C1	FS	2.5 Y 6/2				-	-	rn	VF	Fine Sand	
42-120	C2	S	2.5 Y 4/3				20+	20+	56	Firm in P Loose in H	Gobbls & Boulders	

Additional Notes No SW, No Ueeping, No Nothing Observed



**Massachusetts Department of Environmental Protection
Bureau of Resource Protection – Wastewater Permitting Program
Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal**

Builds lot 13

Site Address or Map/Lot Number

C. On-Site Review (minimum of two holes required at every proposed disposal area)

Deep Observation Hole: Date: 9/23/15 Time: 11:00 Weather: Sunny 60°

1. Deep Hole Number 13D

Location (Identify on Plan): Lot 13

2. Land Use: Woods Surface Stones: N/A Slope (%): 20 Vegetation: Woods

Landform: Moraine

Position on landscape:

3. Distances from: Open Water Body ft. Drainage Way ft. Possible Wet Area ft.

Property Line ft. Drinking Water Well ft. Other ft.

4. Parent Material: Glac. Unsuitable Materials Present: Yes No

If Yes: Disturbed Soil Fill Material Impervious Layer(s) Weathered/Fractured Rock Bedrock

5. Groundwater Observed: Yes No

If Yes: Depth Weeping from Pit ft. Standing Water in Hole ft. Estimated Depth to High Groundwater: 120 + "

A		Soil Horizon/ Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features (mottles)			Coarse Fragments % by Volume	Gravel Percent	Cobbles & Stones	Soil Structure	Soil Consistency (Moist)	Other
B	Depth (In.)				Depth	Color	Percent						
0-3	A _p	PSL	10 yrn 3/3				-	-	-	-	6	VF	
3-18	B _w	PSL	10 yrn 4/4				-	-	5	1	1	VF	Many Rocks
18-40	C ₁	PS	2.5 yr 4/2				-	-	-	-	1	VF	Fine Sand
40-120	C ₂	S	2.5 yr 4/3				20 ⁺	20 ⁺	56	56	56	Form in P Inse in H	Gabbro & Boulders

Additional Notes No Sw, no Weeping, no Mottling, observed.



**Massachusetts Department of Environmental Protection
Bureau of Resource Protection – Wastewater Permitting Program**

Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

Builders Lot 13

Site Address or Map/Lot Number

C. On-Site Review (minimum of two holes required at every proposed disposal area)

Deep Observation Hole: Date: 9/23/15 Time: 10:15 Weather: Sunny 60°

1. Deep Hole Number 13 4 Location (Identify on Plan): Lot 13

2. Land Use: Woods Surface Stones: 1/4 Slope (%): 20 Vegetation: Wooded

Landform: Moraine Position on landscape:

3. Distances from: Open Water Body ft. Drainage Way ft. Possible Wet Area ft.

Property Line ft. Drinking Water Well ft. Other ft.

4. Parent Material: Glacial Unsuitable Materials Present: Yes No

If Yes: Disturbed Soil Fill Material Impervious Layer(s) Standing Water in Hole ft. Estimated Depth to High Groundwater: 120 + 14

5. Groundwater Observed: Yes No Standing Water in Hole ft. Estimated Depth to High Groundwater: 120 + 14

A	B	Depth (In.)	Soil Horizon/ Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features (mottles)			Coarse Fragments % by Volume	Soil Structure	Soil Consistence (Moist)	Other
						Depth	Color	Percent				
0-3	A _p	F _{SL}	10 YR 7/3						-	-	6	VR
3-24	B _w	F _{SL}	10 YR 4/4						-	5	1	VR
24-120	C ₁	S	2.5Y 4/3						20+	20+	SL	Firm to P Loose in H

Additional Notes No Sw, No Weeping, No Mottling observed



**Massachusetts Department of Environmental Protection
Bureau of Resource Protection – Wastewater Permitting Program**

Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

Bullock Lot 14

Site Address or Map/Lot Number

C. On-Site Review (minimum of two holes required at every proposed disposal area)

Deep Observation Hole: Date: 9/23/15 Time: 8:45 Weather: Sunny 50°

1. Deep Hole Number 14 A

Location (Identify on Plan): Lot 14

2. Land Use: Lands Surface Stones: 0/4 Slope (%): 10-15 Vegetation: Lawns

Landform: Moraine

Position on landscape:

3. Distances from: Open Water Body ft. Drainage Way ft. Possible Wet Area ft.

Property Line ft. Drinking Water Well ft. Other ft.

4. Parent Material: Sand Unsuitable Materials Present: Yes No

If Yes: Disturbed Soil Fill Material Impervious Layer(s) Weathered/Fractured Rock Bedrock

If Yes: Depth Weeping from Pit ft. Standing Water in Hole ft. Estimated Depth to High Groundwater: 120 ft

$D = 2 \text{ m}^{1/3}/\text{in}$

Depth	<u>52"</u>
Start Soak	<u>/t 05</u>
End Soak	<u>11:20</u>
Time at 12	<u>1:20</u>
Time at 9	<u>1:22</u>
Time at 6	<u>1:24</u>

Depth (in.)	Soil Horizon/ Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features (mottles)			Coarse Fragments % by Volume	Soil Structure	Soil Consistency (Moist)	Other
				Depth	Color	Percent				
0 - 2	A _p	FSL	10 YR 1/3				-	-	6	VF
2 - 18	Bw	FSL	10 YR 4/4				-	5	M	VF
18 - 120	C ₁	S	2.5 YR 4/3				20 ⁺	20 ⁺	SL	Firm in P Cobbles & Boulders. 5" layer of Fine sand e 81".

Additional Notes No Sulfur, No Manganese, No Mottling, Observed



**Massachusetts Department of Environmental Protection
Bureau of Resource Protection – Wastewater Permitting Program
Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal**

Boulders Lot 14

Site Address or Map/Lot Number

C. On-Site Review

(minimum of two holes required at every proposed disposal area)

Deep Observation Hole: Date: 9/13/15

Time: 9:00

Weather: Sunny 50°

1. Deep Hole Number 1413 Location (Identify on Plan): Lot 14

2. Land Use: Lands Surface Stones: N/A Slope (%): 10-15 Vegetation: Waded

Landform: Moraine

Position on landscape:

3. Distances from: Open Water Body ft. Drainage Way ft. Possible Wet Area ft.

Property Line ft. Drinking Water Well ft. Other ft.

4. Parent Material: Jame Unsuitable Materials Present: Yes No

If Yes: Disturbed Soil Fill Material Impervious Layer(s) Weathered/Fractured Rock Bedrock

5. Groundwater Observed: Yes No

If Yes: Depth Weeping from Pit ft. Standing Water in Hole ft.

Estimated Depth to High Groundwater: 120 ft

Depth (in.)	Soil Horizon/ Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features (mottles)			Coarse Fragments % by Volume			Soil Structure	Soil Consistency (Moist)	Other
				Depth	Color	Percent	Gravel	Cobbles & Stones				
0-2	A	Ap	FSL	10 yr 1/2			-	-	6	VF		
2-20	B _u	E _u	10 yr 4/4				-	5	4	VF		
20-120	C ₁	S	25 yr 4/3				20+	20+	SC	Firm in P loose in H Boulders + Cobbles + Boulders		
										5" layer of fine sand		
										@ 30"		

Additional Notes: No Sis., No Weeping, No Mottling observed



**Massachusetts Department of Environmental Protection
Bureau of Resource Protection – Wastewater Permitting Program
Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal**

Buil^{ers} lot 14

Site Address or Map/Lot Number

C. On-Site Review (minimum of two holes required at every proposed disposal area)

Deep Observation Hole: Date: 9/23/15 Time: 9:15 Weather: Sunny 50°

1. Deep Hole Number 14C Location (Identify on Plan): Lot 14
2. Land Use: Woods Surface Stones: N/A Slope (%): 0-15 Vegetation: Wooded
Landform: Moraine Position on landscape: Top
3. Distances from: Open Water Body ft. Drainage Way ft. Possible Wet Area ft.
Property Line ft. Drinking Water Well ft. Other ft.
4. Parent Material: Sand Unsuitable Materials Present: Yes No
- If Yes: Disturbed Soil Fill Material Impervious Layer(s) Weathered/Fractured Rock Bedrock
- If Yes: Depth Weeping from Pit — Standing Water in Hole — Estimated Depth to High Groundwater: 120⁺" P = 2 min./in.

Depth (in.)	Soil Horizon/ Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features (mottles)			Coarse Fragments % by Volume	Soil Structure	Soil Consistency (Moist)	Other
				Depth	Color	Percent				
A	B									
0-3	Ap	FSL	10 YR 3/4			—	—	6	VF	
3-40	Bw	FSL	10 YR 4/4			—	5	M	VF	None Roots
40-120	C	S	7.5 Y 4/3			20 ⁺	20 ⁺	SC	Firm in P Loose in H	Wobblers + Boulders

Additional Notes No So₄, No Uptake, No Mottling Observed



**Massachusetts Department of Environmental Protection
Bureau of Resource Protection – Wastewater Permitting Program
Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal**

Builders Lot 14

Site Address or Map/Lot Number

C. On-Site Review (minimum of two holes required at every proposed disposal area)

Deep Observation Hole: Date: 9/23/15 Time: 9:30 Weather: Sunny 50°

1. Deep Hole Number 14D Location (Identify on Plan): Lot 14

2. Land Use: Lands Surface Stones: N/A Slope (%): 0-15 Vegetation: Wooded

Landform: Moraine

Position on landscape:

3. Distances from: Open Water Body ft. Drainage Way ft. Possible Wet Area ft.

Property Line ft. Drinking Water Well ft. Other ft.

4. Parent Material: Sand Unstable Materials Present: Yes No

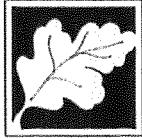
If Yes: Disturbed Soil Fill Material Impervious Layer(s) Weathered/Fractured Rock Bedrock

5. Groundwater Observed: Yes No

If Yes: Depth Weeping from Pit ft. Standing Water in Hole ft. Estimated Depth to High Groundwater: 120 + 4 ft

Depth (in.)	Soil Horizon/ Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features (mottles)			Coarse Fragments % by Volume		Soil Structure	Soil Consistency (Moist)	Other
				Depth	Color	Percent	Gravel	Cobbles & Stones			
0-3	A _p	F _{SL}	10 YR 3/3				—	—	6	VF	
3-16	B _w	F _{SL}	10 YR 4/4				—	5	M	VF	Roots
16-120	C _i	S	15 Y 4/3				20 ⁺	20 ⁺	SC	Firm in P Loose in H	Cobbles & Boulders

Additional Notes: No So, No Weeping, No Mottling Observed



**Massachusetts Department of Environmental Protection
Bureau of Resource Protection – Wastewater Permitting Program
Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal**

Bridges lot 15

Site Address or Map/Lot Number

C. On-Site Review (minimum of two holes required at every proposed disposal area)

Deep Observation Hole: Date: 9/10/15 Time: 10:45 Weather: Sunny 70°

1. Deep Hole Number 154

Location (Identify on Plan): Lot 15

2. Land Use: Woods Surface Stones: NA Slope (%): > 15 Vegetation: Wooded

Landform: Moraine

Position on landscape:

3. Distances from: Open Water Body ft. Drainage Way ft. Possible Wet Area ft.

Property Line ft. Drinking Water Well ft. Other ft.

4. Parent Material: Sand Unstable Materials Present: Yes No

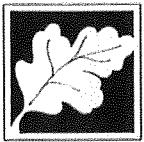
If Yes: Disturbed Soil Fill Material Impervious Layer(s) Weathered/Fractured Rock Bedrock

5. Groundwater Observed: Yes No

If Yes: Depth Weeping from Pit ft. Standing Water in Hole ft. Estimated Depth to High Groundwater: 120 ft

A	B	Soil Horizon/ Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features (mottles)			Coarse Fragments % by Volume		Soil Structure	Soil Consistency (Moist)	Other
					Depth	Color	Percent	Gravel	Cobbles & Stones			
0-2"	A _p	FSL	10 YR 3/4					-	-	6	VF	
2-22"	B _u	FSL	10 YR 4/4					-	-	10%	M	Very Loamy + Boulders
22-120"	C	S	25 Y 4/2					>20	>20	SL	Firm in hole mix of fine sand in hole + coarse below	No

Additional Notes No Sulfur, No Upticks, No Mottling



**Massachusetts Department of Environmental Protection
Bureau of Resource Protection – Wastewater Permitting Program
Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal**

Builds lot 15

Site Address or Map/Lot Number

C. On-Site Review (minimum of two holes required at every proposed disposal area)

Deep Observation Hole: Date: 9/14/15 Time: 11:00 Weather: Sunny 70°

1. Deep Hole Number 15 B Location (Identify on Plan): Lot 15
2. Land Use: Woods Surface Stones: N/A Slope (%): 1:2 Vegetation: Wooded
Landform: Moraine Position on landscape:
25' off rear
3. Distances from: Open Water Body ft. Drainage Way ft. Possible Wet Area ft.
4. Property Line ft. Drinking Water Well ft. Other ft.
Parent Material: Shale Unsuitable Materials Present: Yes No
- If Yes: Disturbed Soil Fill Material Impervious Layer(s) Weathered/Fractured Rock Bedrock
- If Yes: Depth Weeping from Pit ft. Standing Water in Hole ft. Estimated Depth to High Groundwater: 120"
P = 2 min/m

Depth (In.)	Soil Horizon/ Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features (mottles)			Coarse Fragments % by Volume		Soil Structure	Soil Consistency (Moist)	Other
				Depth	Color	Percent	Gravel	Cobbles & Stones			
0-2	Ag	FSL	10YR 3/3				-	-	6	✓	Plant, cables
2-10	B _u	FSL	10YR 4/4				-	10%	✓	✓	+ Boulders
10-120	C ₁	S	2.5-4 4/2				20%	20+%	SC		Worse to best fine + coarse loose in head

Additional Notes No SW, No Weeping, No Mottling



**Massachusetts Department of Environmental Protection
Bureau of Resource Protection – Wastewater Permitting Program
Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal**

Builidles lot 15

Site Address or Map/Lot Number

C. On-Site Review (minimum of two holes required at every proposed disposal area)

Deep Observation Hole: Date: 9/16/15 Time: 11:15 Weather: Sunny 70°

1. Deep Hole Number: 5C Location (Identify on Plan): Lot 15
2. Land Use: Woods Surface Stones: N/A Slope (%): 1/3 Vegetation: Undergrowth
3. Distances from: Open Water Body ft. Drainage Way ft. Possible Wet Area ft.
Property Line ft. Drinking Water Well ft. Other ft.
4. Parent Material: Shale Unsuitable Materials Present: Yes No
5. Groundwater Observed: Yes No
If Yes: Depth Weeping from Pit — Standing Water in Hole — Estimated Depth to High Groundwater: 120" + $P = 2 \text{ min/in}$

Depth (In.)	Soil Horizon/ Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features (mottles)			Coarse Fragments % by Volume	Soil Structure	Soil Consistency (Moist)	Other
				Depth	Color	Percent				
0-2"	A _p	FSL	10 YR 3/3			-	10	6	VF	<i>Brick Colored Boulders 18"</i>
2-30	B _w	FSL	10 YR 4/4				10	M	VP	<i>Firm in Plant Base 18"</i>
30-120	C ₁	S	2.5 Y 4/2			20*	20*	SC	<i>Firm in Plant Base 18" to 90" few Gleys</i>	

Additional Notes No SW, No Weeping, No Nothing



Massachusetts Department of Environmental Protection
Bureau of Resource Protection – Wastewater Permitting Program
Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

Builders lot 15

Site Address or Map/Lot Number

C. On-Site Review (minimum of two holes required at every proposed disposal area)

Deep Observation Hole: Date: 9/16/15 Time: 11:30 Weather: Sunny 70°

1. Deep Hole Number 15D Location (Identify on Plan): Lot 15

2. Land Use: Woods Surface Stones: N/A Slope (%): 1-3 Vegetation: Wooded

Landform: Hillside

Position on landscape:

3. Distances from: Open Water Body ft. Drainage Way ft. Possible Wet Area ft.

Property Line ft. Drinking Water Well ft. Other ft.

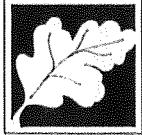
4. Parent Material: Shale Unsuitable Materials Present: Yes No

If Yes: Disturbed Soil Fill Material Impervious Layer(s) Weathered/Fractured Rock Bedrock

5. Groundwater Observed: Yes No
If Yes: Depth Weeping from Pit ft. Standing Water in Hole ft. Estimated Depth to High Groundwater: 120" +

A	B	Soil Horizon/ Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features (mottles)			Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
					Depth	Color	Percent	Gravel	Cobbles & Stones			
0-2	A _p	P _{3L}	10 YR 3/1					—	—	6	VF	New Party Boulders & Cobble galore
2-10	B ₁	P _{3L}	10 YR 4/4					—	10	11	VF	Large sand boulder 90" with fern
10-120	C ₁	S	2.5 Y 4/2					25	20+	50	Firm to P loose soil	Cobbles

Additional Notes No SW, No Weeping, No Mottling



**Massachusetts Department of Environmental Protection
Bureau of Resource Protection – Wastewater Permitting Program
Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal**

Proposed Site Below
Site Address or Map/Lot Number

C. On-Site Review (minimum of two holes required at every proposed disposal area)

Deep Observation Hole: Date: 9/23/15 Time: 2:05 Weather: Sunny 70°

1. Deep Hole Number J-3

Location (Identify on Plan): _____
Landform: _____

Position on landscape:
Parent Material: _____

3. Distances from: Open Water Body ft. Drainage Way ft. Possible Wet Area 75-80 ft.

Property Line ft. Drinking Water Well ft. Other ft.

4. Parent Material: _____
If Yes: Disturbed Soil Fill Material Impervious Layer(s) Weathered/Fractured Rock Bedrock

5. Groundwater Observed: Yes No
If Yes: Depth Weeping from Pit ft. Standing Water in Hole ft. Estimated Depth to High Groundwater: 36"

Depth (In.)	Soil Horizon/Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features (mottles)			Coarse Fragments % by Volume	Soil Structure	Soil Consistency (Moist)	Other
				Depth	Color	Percent				
0-3	A _p	FSL	10 yr 3/3				-	-	6	VF
3-20	B _w	FSL	10 yr 4/6				-	-		
20-46	C ₁	FS	2.5 yr 5/4	36"	c. 5 yr 7/6 D. 2.5 yr 5/2		-	-		
46-84	C ₂	S	2.5 yr 4/2				10	20	SC	Firm in P Loose in H

Additional Notes No SW, No Weeping, Mottling @ 36"



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Proposed SW Basin

Site Address or Map/Lot Number

C. On-Site Review (minimum of two holes required at every proposed disposal area)

Deep Observation Hole: Date: 9/23/15 Time: 1:00 Weather: Sunny 70°

1. Deep Hole Number SW-1 Location (Identify on Plan): _____
2. Land Use: Wood Surface Stones: NA Slope (%): 0 Vegetation: Wood
3. Distances from: Open Water Body ft. Drainage Way ft. Possible Wet Area 75-80 ft.
Property Line ft. Drinking Water Well ft. Other ft.
4. Parent Material: _____ Unstable Materials Present: Yes No
- If Yes: Disturbed Soil Fill Material Impervious Layer(s) Weathered/Fractured Rock Bedrock
5. Groundwater Observed: Yes No
If Yes: Depth Weeping from Pit ft. Standing Water in Hole ft. Estimated Depth to High Groundwater: 76 + n

Depth (In.)	Soil Horizon/ Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features (mottles)			Coarse Fragments % by Volume		Soil Structure	Soil Consistency (Moist)	Other
				Depth	Color	Percent	Gravel	Cobbles & Stones			
0-3	A _p	PSL	10 YR 3/3				-	-	G	VF	
3-24	B _w	PSL	10 YR 4/4				-	5	M	VF	
24-76	C _i	S	2.5 Y 4/3				20 ^t	20 ^t	SC	Firm in P Loose in H	

Additional Notes No SW, No Weeping, No Mottling



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Proposed SW Basin location
Site Address or Map/Lot Number

C. On-Site Review (minimum of two holes required at every proposed disposal area)

Deep Observation Hole: Date: 9/23/15 Time: 1:45 Weather: Sunny 78°

1. Deep Hole Number SW-2 Location (Identify on Plan): Storm Water Basin

2. Land Use: Woods Surface Stones: N/A Slope (%): ≤ 5% Vegetation: Wooded

Landform: _____ Position on landscape: _____

3. Distances from: Open Water Body ft. Drainage Way ft. Possible Wet Area 75-80 ft.

Property Line ft. Drinking Water Well ft. Other ft.

4. Parent Material: _____ Unsuitable Materials Present: Yes No

If Yes: Disturbed Soil Fill Material Impervious Layer(s) Weathered/Fractured Rock Bedrock

5. Groundwater Observed: Yes No If Yes: Depth Weeping from Pit — Standing Water in Hole — Estimated Depth to High Groundwater: 36"

A	B	Soil Horizon/ Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features (mottles)			Coarse Fragments % by Volume	Soil Structure	Soil Consistency (Moist)	Other
					Depth	Color	Percent				
0-3"	A ₁	F ₁	F ₁ L	10 YR 3/3				—	—	6	VH
3-26"	B ₁	F ₁ L	10 YR 4/6					—	—	m	VH
22-58	C ₁	F ₁ S	2.5 Y 5/4	36"	c. 5 YR 4/10	D. 25 Y 5/2	—	—	—	m	VH
58-96	C ₂	S	2.5 Y 4/2				10	20	SL	Firm P Loose in H Heavy Ridging throughout	Fine Sand

Additional Notes SW e 89", Wiping e 86", Mottling e 36"

